SEARCH

DO YOU EXIST?
How and why you should help prospective employers find the real you on the Web. **SEE PAGES 18 AND 30.**

DOUBLE VISION
Users with multiple monitors say having more than one increases their productivity. **PAGE 12**

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MARCH 26, 2007 ▪ VOL. 41 ▪ NO. 13 ▪ $5/COPY

Oracle Claims SAP Stole Trade Secrets

Suit says third-party support unit downloaded software, documents

BY TODD R. WEISS AND MARC L. SONGINI

Oracle Corp. last week charged applications archrival SAP AG with the electronic theft of "thousands of proprietary, copyrighted software products and other confidential materials" used by Oracle's support organization.

A 44-page lawsuit, filed last Thursday in federal court in San Francisco, alleges that SAP copied the software programs and support materials onto its own servers as part of a plan to compile "an illegal library" of Oracle code and instructional documents.

The lawsuit contends that the illegal downloads originated from an IP address in Bryan, Texas, the location of SAP subsidiary TomorrowNow Inc. The unit provides software maintenance and support services for PeopleSoft, Siebel and J.D. Edwards applications — all owned by Oracle.

On Friday, SAP issued a statement in which it declined to comment about Oracle's accusations but said it "will aggressively defend against the claims made in the lawsuit."

Oracle said in the lawsuit that it first spotted the illegal activity last November and that SAP made the downloads on behalf of at least 27 customers.

Two of those customers, Metro Machine Corp. in Norfolk, Va., and Honeywell International Inc. in Morristown, N.J., declined to comment.

Richard Gates, CIO at San

Oracle/SAP, page 16

> After the dust settles, we'll decide what to do. This could drag on for years.
>
> **RICHARD GATES,** CIO, ACE PARKING MANAGEMENT INC.

NEWSPAPER

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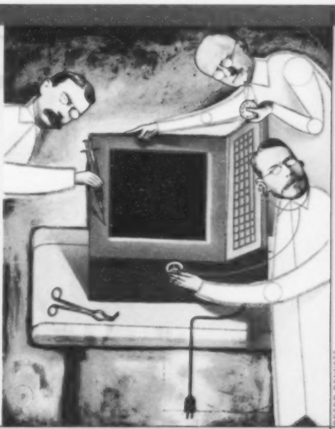
What's Plaguing E-health?



PETER BENNETT

Culture, cost and plain old inertia still impede adoption of electronic medical records systems, but Thomas Hoffman finds new approaches that could provide a shot in the arm. PAGE 21

IT Execs Look Beyond India For Possible Offshore Sites

With costs rising, appeal of other countries grows

BY PATRICK THIBODEAU
DALLAS

At Gartner Inc.'s Outsourcing Summit here last week, the consulting firm said wages paid to tech workers in India for application-related services continue to rise. For instance, in 2004, a U.S. customer might have been billed $22 per hour for a Java programmer in India. By next year, that same programmer's services may cost nearly $40 per hour, according to Gartner.

One conference attendee whose company runs its own offshore development facility in India agreed with Gartner's assessment of the wage increases in India. "We're finding that ourselves," said the attendee, who requested anonymity. He added that his CIO asked him last year to investigate other countries, and his company is currently looking at China as a possible alternative for offshore IT work.

Most outsourcing customers are insulated from wage increases under their contracts with IT services vendors. But not all are. And in general, there seemed to be a willingness among the IT managers at the conference to explore the globe when it comes to offshoring.

For instance, Nashville-based Nissan North America Inc. gets application development services from Satyam Computer Services Ltd. in Hyderabad, India. All of that work is done in India now. But James McClanahan, Nissan's director of applications, said that if Satyam were to suggest moving some of the devel-

Outsourcing, page 37

INSIDE

- Gartner's list of countries with offshore outsourcing potential includes a U.S. nemesis: Cuba.
- Minneapolis CIO Karl Kaiser says offshoring could create political problems.

SEE STORIES, PAGE 37

The Highly R

VOLUME 1 – ISSUE 2 | Windows Server 2003 | For all stories go to

WINDOWS SERVER TAKES CHECKERED FLAG OVER LINUX

Windows Server
Continental
Continental

Tom Nagy for The Highly Reliable Times

THE CONTIDROM, CONTINENTAL AG's storied test track located near Hanover, Germany.

Microsoft

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www.microsoft.com/getthefacts

special edition

New System Gives Global Automotive Supplier 99.9% Reliability

By MICHAEL BETTENDORF

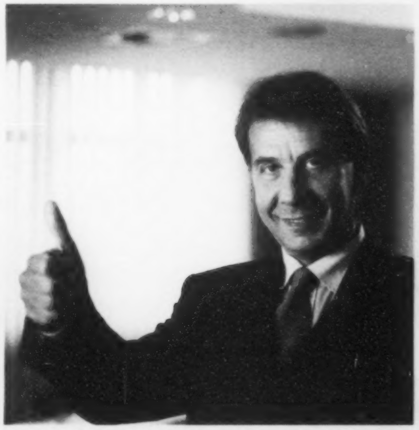
HANOVER, Jan. 2007 – “We needed rock-solid reliability, and we weren’t getting it from our legacy infrastructure,” says Paul Schwefer, CIO at Continental AG, one of the world’s largest automobile suppliers with over 85,000 employees worldwide. Inadequate management tools made it difficult for Schwefer’s team to keep system uptimes at the high levels expected at Continental AG, so a change in platform was necessary.

Initially, a Linux solution was considered. However, after a thorough evaluation, Schwefer’s team determined that Linux could not deliver the reliable, predictable environment Continental AG required. Instead, they chose Microsoft® Windows Server® 2003.

With key features of Windows Server 2003 such as group policy management, Schwefer found clear advantages over a Linux-based solution. “Windows Server provides a reliable environment with centralized administration and management,” said Schwefer, who believes that superior manageability leads to high reliability. “Duplicating this level of service in a Linux-based environment would have been very difficult and more costly,” he says.

The decision has proven successful: Since the implementation, Windows Server 2003 has provided 99.9% reliability in a distributed environment for Continental AG. For the full Continental AG case study, plus other case studies and independent research findings on the reliability of Windows Server versus Linux, visit **microsoft.com/getthefacts**

RELIABILITY NEWS & NOTES: A study



BREAKING NEWS: Reliability linked to cheerfulness in IT professionals

In a trend with global implications, IT professionals such as Continental AG CIO Paul Schwefer show obvious signs of exuberance (see above) due to high Windows Server reliability.

> *“Windows Server provides a reliable environment with centralized administration and management. Duplicating this level of service in a Linux-based environment would have been very difficult.”*
>
> *— Paul Schwefer, CIO, Continental AG*

CONTINUED GROWTH: More and more

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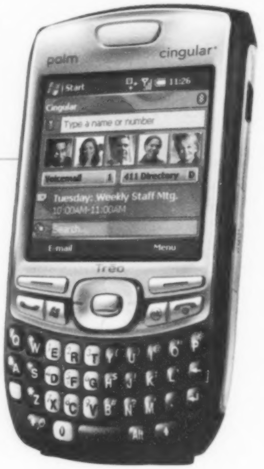

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03.26.07

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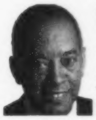
6 Cisco upgrades its communication system for emergency responders, adding support for devices other than radios.

7 The Web 2.0 bubble won't burst, because consumers are demanding that businesses use it, say users and analysts.

7 Technical woes and funding problems led to the quiet demise of one of oldest regional health information organizations.

10 IT issues rarely get adequate attention at corporate board meetings, a recent survey shows.



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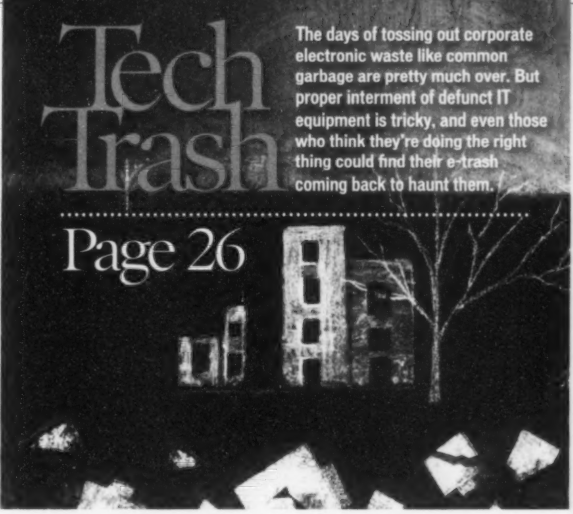

Tech Trash

The days of tossing out corporate electronic waste like common garbage are pretty much over. But proper interment of defunct IT equipment is tricky, and even those who think they're doing the right thing could find their e-trash coming back to haunt them.

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NOMA BLISS

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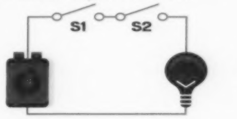

30 How to 'Get Found' on the Web. If someone searches for your name on the Web and comes up empty-handed, do you exist? For IT professionals, it's not a rhetorical question. Here's how to help prospective employers find the *real* you.

31 Doing the Right Thing for Security's Sake. When a new governor calls for a consolidation of IT and security, C.J. Kelly finds she can't play her role without falling back on her personal code of ethics.

SECURITY MANAGER'S JOURNAL

OPINIONS

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18 Don Tennant believes that you can no longer expect your professional standing to progress unless you have an easily accessible, broadly informative presence on the Web.

18 Ira Winkler proposes four laws that Congress should pass to help stop identity theft.

32 Robert L. Mitchell says that the online application suites creeping into your corporate IT infrastructure are creating new security risks.

38 Frankly Speaking: **Frank Hayes** explains how IT can help retailers prevent situations such as the $8 million loss Wal-Mart suffered as a result of the TJX data breach.

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Virtualization Gotchas

HARDWARE: Not everything can — or should — be virtualized, according to those who have done it. Upfront planning is critical.
www.computerworld.com/hardware

Freedom From the Office

MOBILE/WIRELESS: Like the nomadic Bedouins of the Arabian desert, you can be wherever you want to be and keep working. Columnist Mike Elgan tells you how.
www.computerworld.com/mobilewireless

Corporate IM Strategies

NETWORKING: When evaluating instant messaging systems, you should look for features such as encryption, scalability and recording capabilities.
www.computerworld.com/networking

Living (and Dying) With Linux in the Workplace

SOFTWARE: A Windows power user gives Linux a fair trial as her primary operating system at work. Does the open-source software have what it takes to make her switch for good?
www.computerworld.com/software

Growing Pressure for Data Classification

MANAGEMENT: The list of reasons for classifying and protecting data keeps growing longer and longer. Jay Cline offers some helpful guidance.
www.computerworld.com/management

Cracking Google's 'Secret Sauce' Algorithm

NETWORKING: If you're trying to get your content moved up in Google's search rankings, take this tip from Google itself: "Pretend we're not here."
www.computerworld.com/networking

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AT DEADLINE

Six Arrested for Misusing TJX Data

Six people were arrested in Florida on fraud charges related to the misuse of credit card data stolen from The TJX Companies Inc. The suspects were charged with using the data to buy large quantities of gift cards from Wal-Mart and Sam's Club warehouse stores.

Bill Proposes Lifting H-1B Visa Limits

Legislation introduced in Congress calls for an increase in the federal government's annual cap on H-1B visas from 65,000 to as many as 180,000. The proposal is part of an immigration reform bill co-sponsored by Reps. Luis Gutierrez (D-Ill.) and Jeff Flake (R-Ariz.).

Borders' Alliance With Amazon to End

Borders Group Inc. plans to launch an e-commerce Web site early next year, ending a seven-year alliance with Amazon.com Inc. The site is part of a restructuring plan announced after Borders reported a $73.6 million loss in its fourth quarter.

Computerworld Wins Neal Awards

Frank Hayes, *Computerworld*'s senior news columnist, and **Don Tennant**, its editor in chief, were among the winners at the 53rd Annual Jesse H. Neal National Business Journalism Awards ceremony in New York last Thursday. Hayes, who writes the weekly Frankly Speaking column, won the award for Best Staff-written Editorials or Opinion Columns in publications with annual revenue of more than $7 million. Tennant was the recipient of the 2007 Timothy White Award for Editorial Integrity, which recognizes work that demonstrates integrity, courage and passion.

In addition, *Computerworld.com* was one of three finalists in the Best Web Site category for sites with more than 500,000 unique visitors per month. The Neal Awards are given out by American Business Media Inc.

Feds to Adopt Common Security Settings on PCs

OMB tells agencies to standardize configurations for Windows XP, Vista

BY JAIKUMAR VIJAYAN

FEDERAL AGENCIES have until next February to implement a common set of secure configuration settings, developed by the National Institute of Standards and Technology (NIST) and other organizations, on all of their Windows XP and Windows Vista systems.

But by May 1 of this year, they have to provide the White House Office of Management and Budget with draft plans for deploying and managing the new security configurations. And after June 30, the OMB wants agencies to use the common settings on all the new PCs they buy and make sure that the applications they're purchasing have been certified to work under the settings.

The deadlines were detailed by Karen Evans, the de facto federal CIO, in a memorandum that was sent to agency IT officials last week.

Threat Protection

The standards being adopted were created by NIST, the U.S. Department of Homeland Security, the Defense Information Systems Agency, the National Security Agency and Microsoft Corp. They describe basic configuration settings that are designed to secure systems running Vista and Windows XP against common types of threats, such as buffer overflow attacks.

In her memo, Evans, whose official title is administrator of the OMB's Office of Electronic Government and IT, said the use of standardized configurations is necessary for improving the overall security and reliability of federal systems.

"Common security configurations provide a baseline level of security, reduce risk from security threats and vulnerabilities, and save time and resources," Evans wrote. Such measures, she added, should enable agencies "to improve system performance, decrease operating costs and ensure public confidence in the confidentiality, integrity and availability of government information."

Such stipulations are vital to improving IT security within the federal government, said Alan Paller, director of research at the SANS Institute, a security training and vulnerability research firm in Bethesda, Md. Paller noted that the U.S. Air Force has already adopted a similar program under which it is using a common security configuration on all of its Windows XP systems.

Such standardization can help slow the spread of malware inside organizations and make the software patching process more efficient, according to Paller. It also forces application vendors to pay more attention to security, he said.

EVANS: Standardized settings provide "a baseline level of security."

The government-wide edict "comes just in time to impact developers building applications for Windows Vista," Paller said. "No Vista application will be able to be sold to federal agencies if the application doesn't run on the secure version of Vista."

Indeed, in a separate memo sent to agency heads last week, Clay Johnson, the OMB's deputy director for management, wrote that Microsoft's shipment of Vista "provides a unique opportunity for agencies to deploy secure configurations for the first time when an operating system is released." That makes the adoption of the common settings "critical," he added.

The memo from Evans directs agency CIOs to provide the OMB with detailed information about a variety of issues, including their plans for testing the security configurations in nonproduction environments, automating enforcement of the settings and restricting administration privileges to authorized personnel. Agencies must also be able to install Microsoft patches distributed by the DHS when new vulnerabilities are disclosed, Evans wrote. ▸

Cisco Broadens System For Emergency Personnel

BY MATT HAMBLEN

Cisco Systems Inc. today will announce the second generation of a system designed primarily to help emergency response workers communicate with one another even if they have different radios, phones or other devices.

The first version of Cisco's IP Interoperability and Collaboration System (IPICS), which was introduced in December 2005, works across different channels on a variety of emergency radio systems. But Version 2.0 can support any type of communications device, including cell phones and PC softphones, said Kittur Nagesh, director of marketing for the IPICS technology.

In addition, a new policy engine in IPICS 2.0 lets commanders use a single click on a management console to activate predefined procedures for delivering voice calls, text messages or video to various devices during emergencies.

Cisco has also made the IPICS server software easier to use and enhanced its capabilities for managing resources across multiple agencies, Nagesh said. Each organization can stipulate what information it will share and from which devices, he added.

Police Backup

Drew Depler, customer support manager at the Boulder County, Colo., government's IT office, has been overseeing a field trial of IPICS 2.0 for the past four months. "Having more devices enabled is better for all kinds of contingencies, especially if a police radio failed," he said, noting that many officers carry cell phones in addition to radios.

IPICS 2.0 also will support interfaces between radios and the county's voice-over-IP phones, giving commanders in the Boulder County sheriff's office and other employees the ability to monitor radio communications from the field while at their desks, according to Depler. In addition, he said, undercover officers will be able to use any cell phone in an emergency radio mode to communicate with other officers.

The county, which has about 100 users set up on an IPICS 2.0 server, is considering integrating Cisco's technology with its flood-warning systems so that an automatic message can be sent if the potential for a flash flood is detected. The city of Boulder, which has Boulder Creek flowing through its center, could then broadcast warnings to emergency responders via radio tones, generate text messages to media outlets and make phone calls to nearby residents and businesses, Depler said.

Pricing for the IPICS 2.0 server hardware and software combined starts at $42,000, while the new policy engine has a base price of $15,000. ▸

Consumer Demand Should Prevent Web 2.0 Bubble, Say Users, Analysts

IT organizations rushing to install new technology to talk to customers

BY HEATHER HAVENSTEIN

Vendors' rush to build Web 2.0 technologies reminds some observers of the wild run-up to the Internet bubble during the late 1990s.

However, users and analysts say there is a significant difference this time: Customers are demanding that businesses use wikis, blogs, podcasts, widgets and social networks to communicate with them, and many businesses are already responding to that demand.

Vendors no longer need to create a corporate use for new technologies out of thin air, they noted.

Joseph Jang, director of marketing at mortgage banking company Liberty Financial Group Inc. in Bellevue, Wash., said his company plans to use Zoodango Inc.'s social network to boost brand recognition with a block of customers the company hasn't reached using more traditional outlets.

The company and its 80-plus loan officers will post profiles on the Seattle-based vendor's site to generate leads and better interact with users, Jang said. "[Social networking] promotes aspects of interaction you haven't had before between consumers and the business," he said. "I don't think I fully grasp the potential of the interaction between the two entities. This is a living, breathing thing. It will evolve as it goes along."

Also wading into the Web 2.0 waters is the Austin-based State Bar of Texas, which next month plans to launch a branded social network that will let its 80,000 members connect, collaborate and network, said John Sirman, the organization's Web manager.

The bar association will use technology from Mountain View, Calif.-based Affinity Circles Inc. to create a members-only social network, Sirman said.

Attorneys can feed existing blogs into the community, and members can form special interest groups to collaborate on specific topics, he said.

"We know a lawyer's business and career depend on networking and connections they have with other people," Sirman said. "I see [the social network] as providing an online venue to do that and meet people outside their local circles."

James Sun, CEO of Zoodango, said businesses must adapt to the Web 2.0 method of interacting with customers rather than continue to "blast them" with traditional advertising.

Zoodango this month launched a new program to help businesses and nonprofits use Web 2.0 principles to augment branding and marketing efforts. And during the next several months, Zoodango plans to launch a "virtual Starbucks" online community to allow business professionals to network online as they would in coffeehouses, he added.

Andrew McAfee, an associate professor at Harvard Business School who specializes in IT issues, said companies must embrace the technologies or risk losing out to competitors.

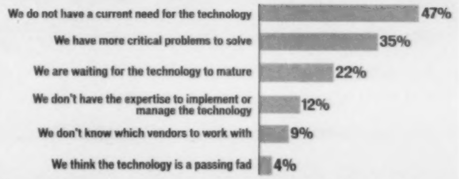
"What if [corporate users] decide to ignore this phenomenon, and their competitors don't and are able to harness this energy we see on the Web with Web 2.0?" he said. "That is a key question for managers."

McAfee said he doesn't expect that a rush to create Web 2.0-based systems will lead to a new dot-com bubble that will burst under the stress of failing businesses. "The first go-around was so big and there was so large a collapse that I have trouble believing either the up or the down will be as big this time around," he said.

David Kirsch, an assistant professor at the University of Maryland and founder of the Business Plan Archive, a historical archive of business plans and other documents from the dot-com era, noted that the "Web 1.0" companies helped ensure the survival of the new firms by creating a strong infrastructure.

"There were community sites in Web 1.0, but what is happening here is we now have the simplest infrastructure pieces, like broadband," he said. "The people who are participating in Web 2.0 have what they need to do the things people were just talking about in Web 1.0." ▸

Which, if any, of the following best describes why your company has not adopted Web 2.0 tools?



Base: 64 CIOs at firms not using at least one of six Web 2.0 technologies; multiple responses allowed

SOURCE: FORRESTER RESEARCH INC. DECEMBER 2006 ONLINE SURVEY

Funding, Tech Woes Shut Down Longtime Health Data Exchange

BY HEATHER HAVENSTEIN

Hampered by development woes, privacy concerns and funding obstacles, one of the country's oldest regional health information organizations (RHIO) has quietly shut down.

The Santa Barbara County Care Data Exchange, launched in 1999 to facilitate the exchange of medical data among physicians, hospitals and other health care organizations in Santa Barbara County, Calif., closed late last year after dealing with myriad policy and technical challenges.

Its ultimate demise can be traced to a "fatigue" that set in among potential members waiting for work to be completed, said Sam Karp, chief program officer at the California HealthCare Foundation, an Oakland-based health care research and philanthropic organization that funded the RHIO.

The foundation invested $10 million in the project in 1999, but by late last year, only two of seven health care operations that were expected to participate had started sharing data, Karp said.

"The foundation's view is that the project died more from the weight of its design than from any of the individual problems it encountered," Karp said.

He contended that the group erred in opting to try to build all of the infrastructure at once instead of taking an incremental approach.

"Had we started with the simple exchange of lab and pharmacy data as opposed to building a system that could transmit not only all clinical information among providers but also make that information available to consumers, we would have been more successful," Karp said.

The RHIO also faced concerns from potential customers about whether it could adequately protect the privacy of patient data flowing through the system — a problem that has proved thorny for health care data exchanges nationwide, Karp said.

The security fears persisted even after a third-party security firm the RHIO hired was unsuccessful in hacking into the peer-to-peer data-exchange system, he noted. "Some of the organizations had serious concerns about their liability for privacy breaches," Karp said.

The potential members also balked at helping to fund the system, even after the first two participating organizations — Cottage Health System and the Santa Barbara Regional Health Authority — began exchanging data last year.

At the same time, several area hospitals had set up their own electronic feeds, limiting the need for the RHIO, Karp explained.

"By the end," he said, "the value proposition of the exchange, given the cost to operate it, wasn't there for the providers."

The demise of the organization proves that such efforts require a sustainable business model, said Bruce Fried, a health care attorney at Washington-based Sonnenschein Nath & Rosenthal LLP. ▸

Failed RHIO

Santa Barbara County Care Data Exchange:

- The initial proposal for the exchange was made by David Brailer, who later became the Bush administration's first health IT point man.
- It was formed in 1998.
- The exchange's first pilot project began in 2005.
- By mid-2006, only two of the seven health care providers originally targeted by the exchange had begun to supply it with data.
- The peer-to-peer system developed by the RHIO will be donated to the open-source community.

BRIEFS

Report Finds Firefox To Be Safer Than IE

Symantec Corp. has reported that Mozilla Corp.'s Firefox browser was hit with 26% fewer vulnerabilities than Microsoft Corp.'s competing Internet Explorer product during the second half of 2006. According to a Symantec research report, 40 Firefox vulnerabilities were disclosed between August and December 2006, compared with 54 bugs for Internet Explorer during the same period. The Opera and Safari browsers had only four flaws each, the report said.

Sun Hires Head of Linux Foundation

Sun Microsystems Inc. has named Ian Murdock to the new post of chief operating platforms officer. Murdock was previously chief technology officer of The Linux Foundation and was the creator of the Debian Linux implementation. In a blog posting, Simon Phipps, chief open-source officer at Sun, said that Murdock will be "responsible for building a new strategy to evolve both Sun's Solaris and GNU/Linux strategies."

Oracle Results Beat expectations

Oracle Corp. reported that its profits grew 31% and sales 26% in the third quarter, exceeding both its own and analysts' expectations for the period.

ORACLE BY THE NUMBERS

	REVENUE	
Q3 '07	$4.4B	$1B
Q3 '06	$3.5B	$765M

HP Buys Maker of Web Printing Tools

Hewlett-Packard Co. has agreed to acquire Tabblo Inc., a privately held developer of software that lets users arrange and print text, graphics and photos from the Web. The acquisition, subject to unspecified closing conditions, is expected to be completed within the next few weeks, HP said. Terms of the deal were not disclosed.

[ON THE MARK]

HOT TECHNOLOGY TRENDS, NEW PRODUCT NEWS AND INDUSTRY BUZZ BY MARK HALL

CATCH!
HELP!
S.S. V.C.
$
IT Start-up

MATTHEW FAULKNER

Money Floods Venture Funds . . .

. . . but no bubble is in sight. Yet. Venture capitalists fuel much of the innovation in IT and always have. The tools you will use tomorrow are being underwritten by risk-hardened investors today. And there must be a lot of risk-ready folks with money to spare, because in 2006, venture capital firms raised more than $28.5 billion and invested $25.5 billion, the most since the Internet bubble burst in 2001, according to the National Venture Capital Association. Commonwealth Capital Ventures (CCV) in Waltham, Mass., recently announced its biggest fund ever. Mike Fitzgerald, managing general partner, says CCV almost had to fight off investors with sticks and took in $50 million more than it had originally planned. While acknowledging that "there's probably a little too much money in the [VC] business right now," says Fitzgerald, "the bubble won't happen again." That's because VCs learned their lesson. One thing Fitzgerald's team learned was to eschew most Series A investments — those given to start-ups with little or no revenue and only a cool idea. Another change in the VC arena, he says, is that entrepreneurs getting money today tend to be more experienced than those of the "tulip mania" days of the Internet bubble.

$250M
Amount of Commonwealth Capital Ventures' fourth investment fund.

Type your way . . .

. . . to authentication. BioPassword Inc. in Issaquah, Wash., this week is releasing an upgrade to its security software that matches a person's unique typing technique with his username and password, adding biometric authentication without additional physical devices. According to CEO Mark Upson, BioPassword Enterprise Edition 3.0 can now be used over a VPN and works in a thin-client environment. It has also been localized in 28 languages. He says the software, which can be tuned to various levels of precision to match people's typing styles, has added a challenge-response feature. This, Upson says, is in case an end user "who may have had too much coffee that morning" is typing somewhat differently than normal and is rejected by BioPassword. Answering the challenge question correctly will authenticate users. Pricing starts at $19.95.

UPSON: No two typists are alike.

The software isn't 'sexy' and . . .

. . . it's free, but VCs still came knocking. Some venture capitalists aren't afraid of Series A investments. Coupa Software Inc. in Foster City, Calif., early on picked up a few million in VC bucks from Menlo Park, Calif.-based BlueRun Ventures. Coupa CEO Dave Stephens remarks, "It's definitely not the dot-com boom days, but it's not the dot-com bust days, either." Loose VC dollars benefit start-ups like Coupa, but having founders who are IT veterans also helps. Coupa's founders hail from Oracle Corp.'s e-procurement software team, helping BlueRun's VCs overlook the fact that the company's first product, Coupa eProcurement Express, officially available today, is a free, open-source tool. However, you might say it exists primarily to whet purchasing managers' appetites for the Coupa eProcurement Enterprise version, which will ship next month. "Procurement software may not be supersexy, but it's supersmart," says Stephens. He calls the commercial version of Coupa "CFO-friendly" and dead simple for end users. The software permits anyone to contribute to product definitions in the online product-procurement catalog and make one-time purchases. It also has processes for handling exceptions. Coupa's commercial version can be run on the premises or through a software-as-a-service model. Pricing has not been finalized.

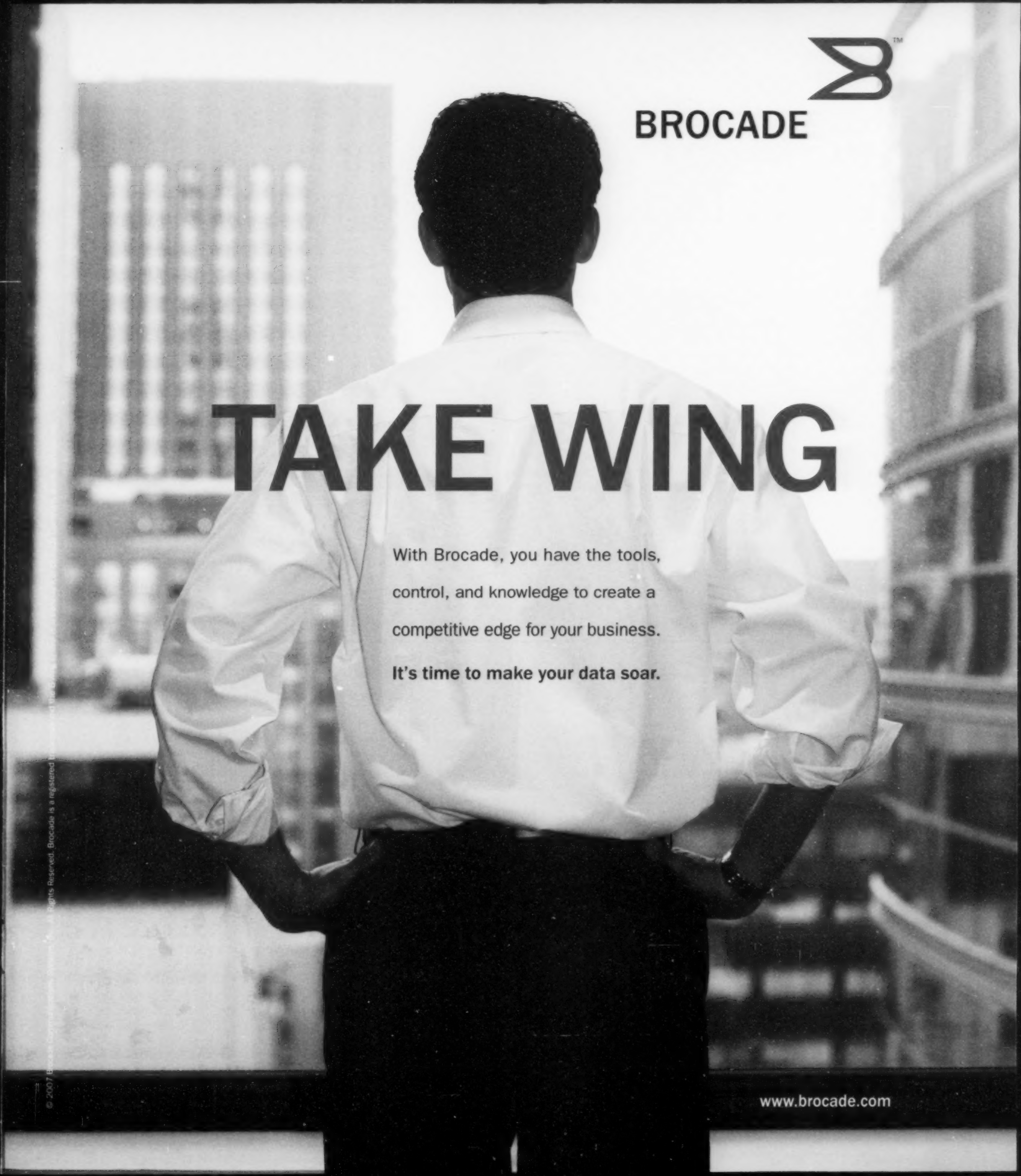
The KBox 2000 appliance helps IT generalists become systems management specialists, says KACE.

KACE is the place . . .

. . . to provision Windows and Linux machines. In late April, KACE Networks Inc. in Mountain View, Calif., will release an upgrade to its KBox 2000 appliance that automates PC and server provisioning. CEO Rob Meinhardt says the device is aimed at the "Fortune 100,000" — small and midsize businesses that have "more generalists than specialists in IT departments." The new features include support for Vista and improved ways to image computers and migrate end-user data to new machines. Pricing starts at $12,900.

Test mobile apps . . .

. . . and services virtually. If your workers don't use the mobile software or services you equip them with, Faraz Syed wouldn't be surprised. The CEO of Mobile Complete Inc. in San Mateo, Calif., contends that users avoid most advanced mobile applications and services. "People do not know how to use them," he says. If they did, Syed argues, adoption rates would be higher. To that end, Mobile Complete this week is making available its Consumer Experience Management Suite, which, Syed boasts, "is the truest view of the end users' view of your apps and services." Users can choose the model of phone they own and test exactly how a new tool will work in a full interactive mode. The online software also provides step-by-step guidance on how to navigate the software or service. Mobile Complete supports hundreds of mobile handsets and virtually all carriers across the globe, Syed claims. Pricing is implementation-specific. ▸

BROCADE

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Survey: Most Corporate Boards Neglect IT Issues at Meetings

A strong bond with the CEO can help IT execs get the support of directors

BY THOMAS HOFFMAN

ALTHOUGH MANY corporate board members believe that IT strategy is important, most directors admit that they don't pay adequate attention to technology issues, according to a study slated to be released this week by Deloitte Consulting LLP.

Of 455 large-company directors surveyed, just 10.5% said their boards discuss IT at every meeting, while 48.7% said their boards talk about IT issues only as the need arises.

Dennis L'Heureux, senior vice president for planning and CIO at Rockford Health System in Rockford, Ill., said he isn't surprised by the study results.

L'Heureux said he has worked for three different CEOs during his 12-year tenure at the health care company, which operates facilities in northern Illinois and southern Wisconsin.

When he first started as Rockford's CIO, L'Heureux provided the board of directors with an IT strategy update every quarter.

Now, in addition to the quarterly updates, he meets with the board every time the company is about to embark on a big project, such as the implementation of medication safety technology or an electronic medical records system, he said.

L'Heureux also spends time with the board either at the CEO's request or on his own to inform directors about new technologies or discuss other IT topics.

"In either case, the board is very familiar with me," said L'Heureux. "I sit as an invited guest to all board meetings and also participate in the annual board retreat. Some of the board members are more comfortable discussing technology than others. However, all of them are very interested in how IT is to be used and how it will bring value to the organization."

'Strong Correlation'

Kenneth Porrello, a principal at Deloitte Consulting in Chicago, said the results did find a "strong correlation" between boards that are diligent in overseeing IT issues and companies that consistently perform better financially than their competitors.

That correlation "doesn't establish causality," he said, but with a base of more than 450 respondents, "it raises questions as to why that is there. It could be that good performing organizations are just simply good at everything."

The study also revealed that CEOs are often very influential in driving boardroom discussions about IT matters, Porrello said. "A CEO's outlook tends to set a tone and tends to get IT on the board's agenda more frequently," he said. "I think it really starts with the relationship between the CIO and the CEO."

Joe Trentacosta, CIO at Southern Maryland Electric Cooperative Inc. (SMECO), said that advocacy of IT issues at board meetings by CEO A. Joseph Slater has been "a critical success factor" for his operation.

Slater champions IT projects by initiating informal discussions with directors prior to board meetings and then actively supports Trentacosta's strategies or decisions during the CIO's presentations to the board, Trentacosta said.

"It begins with ensuring we have an adequate budget to implement new systems and technologies and goes full cycle through active executive sponsorship" of major IT initiatives, Trentacosta said. He cited board support for a customer information system that SMECO finished rolling out a few weeks ago following an 18-month development effort.

He also pointed to Slater's recent backing of the IT organization's decision to move support of its IT infrastructure and operations in-house as it was nearing the end of a 10-year outsourcing contract with a vendor that he asked not be identified.

> **"The board is very familiar with me. I sit as an invited guest to all board meetings and also participate in the annual board retreat.**
>
> **DENNIS L'HEUREUX,** SENIOR VICE PRESIDENT AND CIO, ROCKFORD HEALTH SYSTEM

Although there isn't a one-size-fits-all IT strategy for corporate boards, Porrello suggested that companies using best practices are more likely to discuss IT issues at regular intervals.

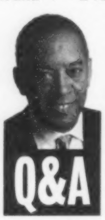
"Sometimes it's a very short agenda item. Sometimes it can be a much deeper dive, like an annual one-hour review of IT investment strategies," he said.

The survey of directors at companies with more than $1 billion in annual revenues was conducted last July and August by Deloitte and *Corporate Board Member* magazine. ▸

Online Fraud, ID Theft Not an OS Issue, Says Symantec Chief

BY JEREMY KIRK
HANNOVER, GERMANY

Symantec Corp. CEO **John Thompson** *contended during a keynote speech at the CeBIT trade show here this month that it's a "huge conflict of interest" for one company to provide both an operating platform and a security platform. He was apparently referring to Microsoft Corp., which offers consumer and enterprise security products to complement its operating systems. In an interview with the IDG News Service, Thompson talked about his company's relationship with Microsoft and the difficulties Symantec has faced as it integrates the former Veritas Software Corp. into its operations.*



How safe is Windows Vista from attacks by hackers? That's a hard one to answer. Over the last four or five years, about every 18 months the threat landscape has changed. Eighteen months ago, the topical issue in the threat landscape was viruses and worms. Today, people are talking about online fraud and identity theft — a very, very different security risk.

If you ask me to project forward another 18 months, I suspect it will be a different problem that we will be tackling. We'll probably be using different techniques and different technologies to do just that. I don't think the kind of threats we are seeing today have anything to do with the underlying platform. Identity theft and online fraud [are] more about the interactions with the user than interaction with the system. And if those forms of threats continue, the question of Vista being a more secure platform becomes somewhat irrelevant.

What is the state of the controversy over Microsoft's Patch Guard technology, which initially would have prevented security vendors like Symantec from accessing the Vista kernel? We are satisfied with what resolution we've reached and the industry has reached with Microsoft around Patch Guard and the Windows Security Center. They've made statements about what they are going to do and delivered on many of the promises they've made. That's all we've wanted all along.

How is Symantec's effort to expand its corporate customer base progressing? Our strategy has been to create a more diversified overall business. If you look at IT spending in general, two-thirds to three quarters of all money that's spent on information technology is spent by corporate users. At one point in time, two-thirds of our revenue came from the consumer marketplace. All we are trying to do is rebalance our revenue such that it looks like the overall IT spending market. We are about there.

Today, 30% of our revenue comes from consumers; 70% comes from midsize to large corporate and government users. That's the right mix for us.

Can you give an update on the integration of Symantec and Veritas, which you bought for $13.5 billion in 2005? Some analysts have written that the transition has been rough. It has been the most challenging thing I've done in the 37 years I've been in this industry. But I'm convinced that strategically, we are on the right path. Operationally, the heavy, heavy lifting items associated with the integration are behind us. So now it's about execution. ▸

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The Basic Idea

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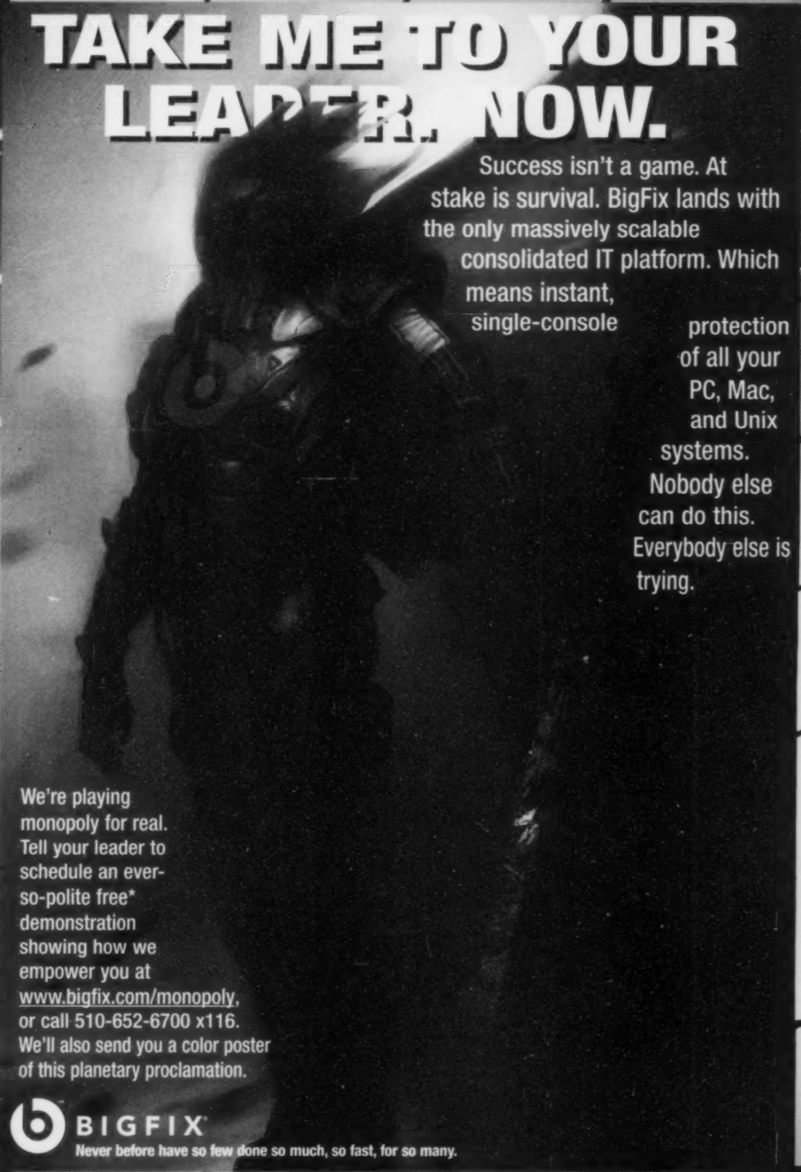

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6,356,936
Instant Advisories

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You're Exposed.

McAfee/Hercules Delay of Game
Terrorists Win

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[Without this, security products tend to have terrible security]
6,879,979
Secure Network Inspection

US PATENT
[Without this, security products tend to have terrible security]
6,931,434
Secure Remote Inspection

Patent Infringement

☐☐☐☐☐☐

THERE'S A REASON BIGFIX HAS TAKEN OVER THE PLANET!

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*Obviously, we don't have unlimited bandwidth to do these free assessments. We're looking for enterprises with tens of thousands of PC/Mac/Linux/Unix systems. Our prices are so low that we can't spend a lot of time selling smaller deployments.

TRBA

BRIEFS

Microsoft Joins OpenAjax Alliance

Microsoft Corp. has become a member of the OpenAjax Alliance, which focuses on accelerating the use of Asynchronous JavaScript and XML, or AJAX, technologies. The company said that it joined the year-old group as part of an effort to provide Web developers with technology that works across different browsers and platforms.

Fortran Inventor Backus Dead at 82

John Backus, who was the lead developer of the first mainstream programming language, Fortran, died at his home in Ashland, Ore., at the age of 82. Backus joined IBM in 1950, seven years before Fortran was unveiled. He won a number of awards, including a National Medal of Science in 1975 and the 1977 Turing Award from the Association for Computing Machinery for his work on Fortran.

Founder Offers $6B To Purchase ACS

The founder and chairman of Affiliated Computer Services Inc. has offered $6 billion to buy the IT services provider and take it private. Darwin Deason, who founded the company in 1988, has joined forces with Cerberus Capital Management LP in the bid to acquire ACS. Deason and Cerberus said they expect to soon begin negotiations with the ACS board or a special committee of its independent directors and quickly seal the deal.

Cisco Updates XR 12000 Router Line

Cisco Systems Inc. has updated its XR 12000 line of routers with a new module designed to deliver more predictable network performance for business services. The Multi-Service Blade for the XR 12000 includes route-aware firewall technology and video/voice session border-control functionality for videoconferencing and similar applications. Priced at $80,000, it will be available in May.

Multiple-Monitor Proponents Point to Productivity Benefits

But IT support for such setups may be lacking

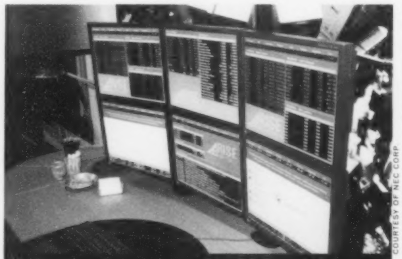
BY PATRICK THIBODEAU

STEFAN THIBEAULT, a programmer at a clothing maker in Montreal, is convinced of the value of attaching dual monitors to his PC. Doing so has given him a larger electronic workspace, eliminated annoyances such as the need to frequently Alt-Tab between applications, and cut down on his trips to the printer.

In short, the dual-monitor setup has made Thibeault more productive. "I couldn't live without it," he said.

But when the IT manager at Thibeault's company asked other employees if they wanted a second monitor last year, few jumped at the offer. Thibeault said it may be that people were concerned about losing desk space or weren't certain of the benefits of using more than one monitor. He asked that his company not be identified.

Workplace adoption of multiple monitors can be hit or miss, especially if an IT department doesn't actively encourage or support the practice. End users may need technical support help to make it possible. Desktop systems in particular may require a video card upgrade that can support separate video outputs.


Multimonitor setups can take up lots of desk space, but users say the ability to view more than one application is a big plus.

COURTESY OF NEC CORP.

But Thibeault and nearly a dozen other end users with multiple monitors said this month that they now can't imagine working with just one. The ability to display e-mail on one monitor, a browser window on a second and in some cases an application on a third, and then seamlessly move their cursors from screen to screen, is a clear benefit, they said.

Denys Beauchemin, an independent wireless and storage consultant in Spring, Texas, is so committed to using dual monitors that when he travels, he packs one in his suitcase to set up next to his laptop.

"It's a bit of a pain to lug around, but I'm so addicted to multiple monitors," Beauchemin said. "I think they're a real boon to my productivity."

Vendors are also paying increased attention to multiple monitors. This month, Advanced Micro Devices Inc. announced a 690G desktop chip set with an integrated Digital Video Interface (DVI) output for supporting intensive graphics across two monitors.

Windows Vista includes support for multiple monitors, as does Windows XP and even Windows 2000 to a lesser extent. That means end users with the initiative to create their own dual-screen setups can do so.

Multitasking Advantage

Jason Quint, an accountant at The Home Depot Inc.'s HD Supply wholesale distribution unit in Atlanta, has configured his laptop screen for side-by-side use with the regular LCD monitor on his desk. "I can look at a spreadsheet while typing an e-mail," Quint said.

Although adoption of multiple monitors may be ad hoc in most workplaces, that isn't the case at Durkin Agency Inc. in Englewood, N.J. When the insurance firm moved to electronic documents last year, it also installed multiple monitors on desktops to make it easier for employees to open documents and use applications in tandem. The LCD screens are connected to monitor arms made by WorkRite Ergonomics Inc. that suspend them above people's desks.

Eileen Durkin, one of the owners of the insurance agency, estimates that dual monitors have helped increase employee productivity by 10%. "People who weren't organized are organized now," she said.

Dual-monitor use isn't without glitches. For instance, if a laptop is disconnected from a stand-alone monitor, upon restart an application may look for the second screen. Some users said they also "lose" their mouse, but they characterized both issues as minor and easy to resolve.

Quantum Data Inc., which makes equipment for testing audio and video products, operates in a paperless environment, and 84% of its workers use more than one monitor, said Mark Stockfisch, the Elgin, Ill.-based company's chief technology officer. Fourteen percent have three.

Almost all of the monitors are 19-in. LCD devices. If an employee has monitors with different resolutions, Stockfisch said he recommends using the highest one for applications such as browsing and e-mail. For resolutions higher than 1280x1024 pixels, he suggests using a DVI connection to get the best display quality. ▸

Energy Cost of Extra Screens Unlikely to Break Bank

USING MULTIPLE MONITORS probably won't add much to the electric bills of individual users. But the extra energy costs could add up at large companies.

The U.S. Department of Energy (DOE) estimates that a 19-in. LCD monitor used in an office consumes 99.8 kilowatt-hours of power per year and that a 17-in. monitor consumes 85.71 kWh annually.

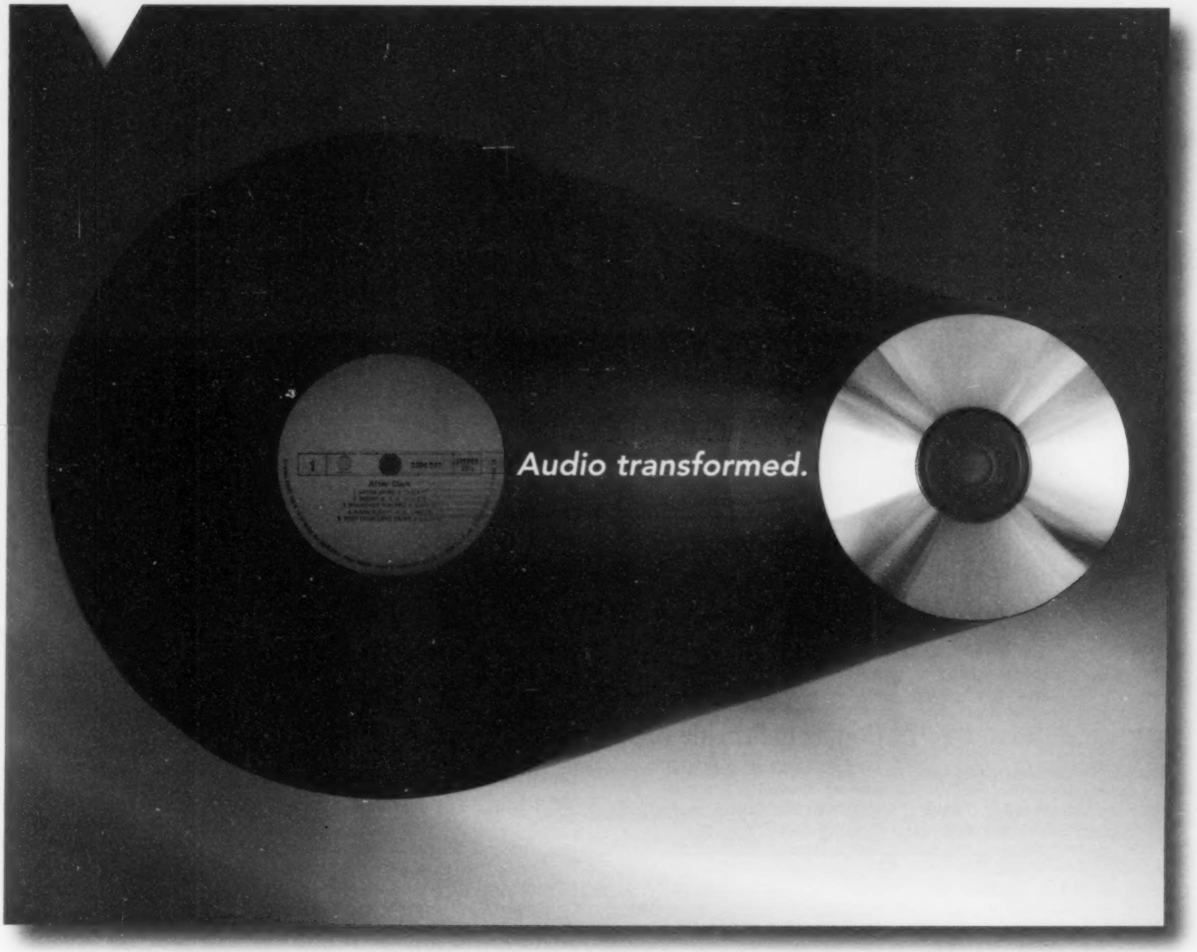
If your utility charged 7 cents per kilowatt-hour, the annual charge for powering that 19-in. LCD monitor would be about $7. At a rate of 11 cents per kilowatt-hour, the tab would increase to about $11.

Power-usage figures for CRT monitors weren't readily available from the DOE. Typically, LCD monitors use less than half the power of CRT displays, which are rapidly disappearing from the market.

For users who want a "green" solution, NEC Corp. this year began selling a solar-powered battery system for its LCD monitors. NEC said the solar package, developed with Carmanah Technologies Corp. in Victoria, British Columbia, can generate 293 kWh of electricity annually – enough to power three monitors. The battery system, which costs $1,999, includes capabilities for storing solar energy that isn't used immediately.

An NEC spokesman said the solar panel included with the battery system measures about 3 ft. by 2 ft. and can be installed in an office window. The panel may last for 50 years, and the solar batteries have a life expectancy of more than 20 years, the spokesman said.

– PATRICK THIBODEAU



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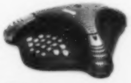

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GLOBALDISPATCHES An International IT News Digest

Agency Slams Banks For Dumping Data

LONDON

RICHARD THOMAS, the U.K. information commissioner, has threatened 11 banks, a mail company and a charity with prosecution for dumping customers' personal data in trash bins outside their premises.

Thomas found that Post Office Ltd. and the banks — HBOS PLC, Alliance & Leicester PLC, Royal Bank of Scotland, Scarborough Building Society, Clydesdale Bank, NatWest, United National Bank, Barclays Bank, Co-operative Bank, HFC Bank PLC and the Nationwide Building Society — had breached the Data Protection Act. The Immigration Advisory Service charity was also found to have disposed of personal data in a similar fashion.

GLOBAL FACT

£33.5M

Losses from online banking fraud in the U.K. last year, up from £23.2 million ($45.5 million U.S.) in 2005.

SOURCE: THE ASSOCIATION FOR PAYMENT CLEARING SERVICES, LONDON

The Information Commissioner's Office earlier this month ordered all 12 organizations to sign formal agreements to comply with Data Protection Act principles. Any further breaches will prompt further action — including possible prosecution, Thomas said.

"It is unacceptable for banks and other organizations to carelessly discard their customers' information," said Deputy Information Commissioner David Smith.

■ TASH SHIFRIN, COMPUTERWORLD U.K.

Yahoo HK Cleared In Dissident Case

HONG KONG

YAHOO INC.'S Hong Kong subsidiary did not violate the territory's Personal Data Ordinance when it turned over e-mail records that led to the arrest and detention of journalist Shi Tao in China, the Hong Kong government has ruled.

Tao, a former editorial director at the *Contemporary Business News* in China's Hunan Province, was convicted in 2005 of divulging state secrets. An e-mail that Yahoo handed over to Chinese authorities helped prosecutors gain the conviction.

Hong Kong's Privacy Commissioner for Personal Data, Roderick B. Woo, said earlier this month that his office found insufficient evidence that Yahoo China, illegally passed information regarding Tao's e-mail activities to law enforcement officials in China.

Yahoo Hong Kong ran the company's Chinese operation before it was sold to Alibaba.com Corp. in late 2005.

Woo began the investigation after Albert Ho, a Hong Kong legislator, filed a complaint on behalf of Tao. Ho argued that Yahoo Hong Kong had no reason to comply with a Chinese request for information and asked the government to investigate the matter.

Yahoo would have faced censure, a fine or a warning to change its business practices if it had been found to have violated the ordinance.

■ STEVEN SCHWANKERT, IDG NEWS SERVICE

Google to Provide Apps To Groups in Africa

NAIROBI, KENYA

GOOGLE INC. is working with organizations in Rwanda and Kenya to expand the use of Google Apps, including Gmail and Google Talk, in Africa.

In Rwanda, Google Apps will be available to government officials and 20,000 students at the National University of Rwanda in Butare, the Kigali Institute for Education and the Kigali Institute of Science, Technology and Management.

In Kenya, 50,000 students at the University of Nairobi will be offered Google Apps, with the services to be extended later to 150,000 students at other universities in the country, Google said.

The partnerships with the organizations, announced last week, are part of an effort by Google to expand the computing services available in developing countries, Francoise Brougher, Google's global director of business operations, wrote in the company blog.

A Google spokesman noted that the agreement also calls for the company to provide support services to the organizations taking part in the program.

■ DAN NYSTEDT, IDG NEWS SERVICE

City to Offer Web-based Library Lending Service

PORTSMOUTH, ENGLAND

THE CITY COUNCIL of Portsmouth, England, plans to introduce a Web-based lending service for its libraries. The service will allow users to browse the library's collection and to reserve books and audiovisual materials online.

The council will use Spydus library management software from London-based Civica PLC to create the service. Installation of the Spydus software in the city's nine libraries will begin later this year.

Eleanor Scott, the council's executive member for culture and leisure, said the city moved to the Web-based system "to modernize our services in line with the Internet Age. We will be making innovations, such as individual lending and information searches, over the Web while making counter services more flexible."

Over the long term, she said, the council hopes to create an integrated information gateway to all its museums, archive collections and online information.

■ TASH SHIFRIN, COMPUTERWORLD U.K.

Deutsche Postbank Unit Opts for Novell

BONN

DEUTSCHE POSTBANK AG, a Bonn-based retail bank, has signed a contract to replace Microsoft Corp. and CA Inc. software at its BHW Holding AG home financing unit with offerings from Novell Inc.

BHW Holding, which Postbank acquired in 2006, will migrate to Novell groupware, desktop management, identity management and file systems, bringing it in line with Postbank's other business units.

Hameln, Germany-based BHW said it will also replace its Microsoft Windows 2000 servers with Waltham, Mass.-based Novell's Open Enterprise Server, which bundles NetWare secure networking products with SUSE Linux Enterprise Server.

Bank officials said that BHW's 8,000 employees will switch from Microsoft Exchange to Novell's GroupWise for secure e-mail and collaboration, joining 9,000 GroupWise users at Postbank.

In addition, BHW will replace its CA Unicenter software with Novell's ZENworks desktop management product.

■ TASH SHIFRIN, COMPUTERWORLD U.K.

Compiled by Mike Bucken.

Briefly Noted

Motorola Inc. **has named Spiros Nikolakopoulos managing director of Motorola Australia Pty. In that post, he is responsible for Motorola's Australian, New Zealand and Pacific Island operations. He was previously head of Motorola's networks and corporate business in Australasia. Nikolakopoulos replaces John Gherghetta, who now runs Motorola's corporate activities in Europe.**

■ SANDRA ROSSI, COMPUTERWORLD AUSTRALIA

The London borough of Southwark has awarded Serco Group PLC **a £26 million ($50 million U.S.), five-year contract to provide and manage its IT infrastructure. Serco, an IT services provider in Hook, England, will install thin-client technology in borough offices and manage the council's IT operations remotely.**

■ TASH SHIFRIN, COMPUTERWORLD U.K.

Microsoft Hong Kong Ltd. **has unveiled a slew of Hong Kong-specific gadgets for the new Vista operating system. The gadgets are small software applications accessible via Windows Vista Sidebar, a feature of Microsoft's new operating system. They allow users to find and track Internet information without having to open a browser.**

■ STEFAN HAMMOND, COMPUTERWORLD HONG KONG ONLINE

LM Ericsson Telephone Co. **has agreed to buy messaging technology developer Mobeon AB, a Stockholm-based maker of IP-based voice and video mail, for an undisclosed sum. Ericsson, also in Stockholm, said the deal will help it speed the development of new messaging offerings that can be used by telecommunications operators to integrate advanced messaging services with existing Short Messaging Service and voice-mail applications.**

■ NANCY GOHRING, IDG NEWS SERVICE

Micron Technology Inc. **last week announced the opening of its first chip factory in China. The $250 million facility will reach maximum capacity in 2008, when the company expects that it will employ about 2,000 workers.**

■ DAN NYSTEDT, IDG NEWS SERVICE

SHARP

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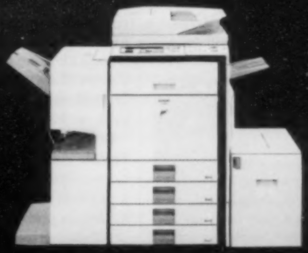

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Continued from page 1

Oracle/SAP

Diego-based Ace Parking Management Inc., a TomorrowNow client not named in the suit, said he plans to stick with the service provider.

"It's a great service. I'm happy to pay the maintenance fee each year," Gates said. "[The suit is] not a source of worry. After the dust settles, we'll decide what to do. Something like this could drag on for years."

John Matelski, chief security officer and deputy CIO for the city of Orlando, which runs J.D. Edwards ERP software, said the lawsuit could force TomorrowNow users to switch service vendors.

"The question then becomes, What will be the additional cost of migrating over to another vendor, or what will Oracle charge?" said Matelski, a past president of the Quest International Users Group, which represents J.D. Edwards and PeopleSoft users.

Oracle said it filed the suit to "stop SAP's illegal intrusions and theft, to prevent SAP from using the materials it has illegally acquired to compete with Oracle and to recover damages and attorneys' fees."

The lawsuit didn't indicate a specific sum Oracle might be seeking, and a company spokeswoman declined to comment on the suit.

Oracle contended that the allegedly stolen materials "enable SAP to offer cut-rate support services to customers who use Oracle software, and to attempt to lure them to SAP's applications platform and away from Oracle's."

It also claimed that SAP's alleged activities were spawned by Oracle's January 2005 acquisition of PeopleSoft Inc.

"Rather than improve its own products and offerings, SAP AG instead considered how to undermine Oracle," the suit states. "One way was to hit at Oracle's customer base — and potentially increase its own — by acquiring and bankrolling a company that claimed the ability to compete with Oracle support and maintenance services on Oracle's own software products."

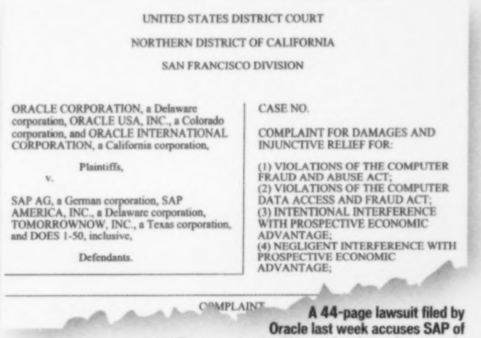
Charles King, an analyst at Pund-IT Inc. in Hayward, Calif., called the lawsuit "a curious state of affairs."

"Oracle has been trying very hard to remake itself as a company that looks more like SAP than the classic Oracle," he said. "It recognized that being a database specialist was not a way to sustain growth." That has resulted in a series of acquisitions that have turned Oracle into SAP's chief application rival, King added.

"One always has to be careful to separate the acts of individuals from corporate acts." noted Mervyn Adrian, an analyst at Forrester Research Inc. "It's hard for me to believe that a company would build such a program to do such a thing. It seems less than credible."

Adrian added that the lawsuit "may turn out to be a tempest in a teapot. I frankly doubt that [SAP is] driving its strategy based on pirated information on what their competition is doing. I don't think what they find in a Dumpster at Oracle changes their strategy on any basis."

The lawsuit cites 11 claims, including allegations that SAP violated the Federal Computer Fraud and Abuse Act and the California Computer Data Access and Fraud Act. It also charges that SAP, which bought TomorrowNow in January 2005, engaged in unfair competition, intentional and negligent interference with prospective economic advantage, and civil conspiracy. ◆



UNITED STATES DISTRICT COURT

NORTHERN DISTRICT OF CALIFORNIA

SAN FRANCISCO DIVISION

ORACLE CORPORATION, a Delaware corporation, ORACLE USA, INC., a Colorado corporation, and ORACLE INTERNATIONAL CORPORATION, a California corporation,

Plaintiffs,

v.

SAP AG, a German corporation, SAP AMERICA, INC., a Delaware corporation, TOMORROWNOW, INC., a Texas corporation, and DOES 1-50, inclusive,

Defendants.

CASE NO.

COMPLAINT FOR DAMAGES AND INJUNCTIVE RELIEF FOR:

(1) VIOLATIONS OF THE COMPUTER FRAUD AND ABUSE ACT;
(2) VIOLATIONS OF THE COMPUTER DATA ACCESS AND FRAUD ACT;
(3) INTENTIONAL INTERFERENCE WITH PROSPECTIVE ECONOMIC ADVANTAGE;
(4) NEGLIGENT INTERFERENCE WITH PROSPECTIVE ECONOMIC ADVANTAGE;

COMPLAINT

A 44-page lawsuit filed by Oracle last week accuses SAP of compiling an extensive library of stolen software code.

ORACLE V. SAP

> **SAP has stolen thousands of proprietary copyrighted software products and other confidential materials that Oracle developed to service its own support customers. SAP gained repeated and unauthorized access, in many cases by use of pretextual customer log-in credentials, to Oracle's proprietary, password-protected customer support Web site.**
>
> AN EXCERPT FROM THE ORACLE LAWSUIT FILED AGAINST SAP

Florida Voting Officials Warned of Glitch Before Election

Losing candidate: Slow touch screens may have been culprit in undervote

BY MARC L. SONGINI

An e-voting machine glitch that Florida officials were warned about last summer may have caused an undervote that Democrat Christine Jennings claims cost her the election in the race for the state's 13th Congressional District seat last November.

Jennings said last week that a memo sent to state officials by manufacturer Election Systems & Software Inc. (ES&S) Aug. 15 acknowledging problems with some machines indicates that voting officials did not address known glitches prior to the Nov. 7 election.

"It's a slap in the face to Florida voters that [state elections officials] knew about a problem with our voting machines and did not do everything within their power to fix it," Jennings said in a statement.

Jennings is contesting the election, which she lost by 369 votes. She contends that 18,000 so-called undervotes — ballots that were cast but whose votes apparently were not recorded — were caused mostly by malfunctioning voting machines.

Shortly after the election, Jennings filed a lawsuit against the Florida Division of Elections seeking a new election.

A spokesman for Jennings said that she is currently evaluating how the memo can be used to strengthen the lawsuit, which was filed in Leon County's Second Circuit Court in Tallahassee.

Response Problems Cited

The memo from Omaha-based ES&S said that several users had reported that iVotronic screens were "exhibiting slow response times" and that there was a delay before a candidate's name was highlighted after voters pressed the touch screen.

The memo said that ES&S technicians studying reports of the flaw found that the response time was limited to specific iVotronic models and was caused by a "smoothing filter."

The filter is a piece of software embedded in the iVotronic hardware that waits for a series of consistent reads from the touch screen before highlighting a candidate's name in preparation for the vote to be cast, ES&S said.

> **It's a slap in the face to Florida voters that [state elections officials] knew about a problem with our voting machines and did not do everything within their power to fix it.**
>
> **CHRISTINE JENNINGS,**
> LOSING CANDIDATE IN THE RACE FOR FLORIDA'S 13TH CONGRESSIONAL SEAT WHO'S CONTESTING THE RESULTS

In some cases, the time lapse was longer than a voter would normally expect, according to the memo.

Because the fix for the problem required state certification and would not be available immediately, the memo urged officials to train poll workers to expect the "slightly delayed" response times during voting in the November election.

An ES&S spokesman noted that a software upgrade was available to address the problem last August, but it was not certified by the state in time for the election. An update will be submitted for certification later this year, he said.

A spokesman for Jennings said that slow response times could have been at least partly responsible for the undercount. A number of voters complained about the response time of the machines used in Sarasota County during the election, he said.

The Florida Division of Elections, which certified the election results, claims that the glitch had no effect on the race's outcome.

"No correlation between the delay and the undervote has been found," said a spokesman for the agency. He said the problem only caused slow loading of some votes and delays in navigating through different screens.

ES&S maintains that the outcome of the election was not affected by screen delays. ◆

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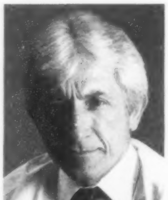
DON TENNANT

Do You Exist?

A LOT OF MY TIME last week was spent preparing to moderate a CIO roundtable discussion that will have taken place by the time you read this. Part of that effort involved familiarizing myself with the participants' backgrounds so I could engage them effectively during pre-roundtable phone interviews.



DON TENNANT is editor in chief of *Computerworld*. Contact him at **don_tennant@computerworld.com**.

Now, understand that these are 14 senior IT executives with enough clout to be invited to a plush resort for the weekend event by the sponsor, a large software company. So, given their high profiles, it's no surprise that I was able to gain an extraordinary amount of information about them simply by Googling their names. But there were a few exceptions. And in one case, I found nothing at all.

A compelling story in this week's issue, "How to 'Get Found' on the Web" (page 30), opens with an intriguing question: If someone searches for you on the Web and comes up empty-handed, do you exist?

It's easy to dismiss the question as the byproduct of relentless Web 2.0 hoopla. And I certainly wouldn't argue that the hoopla doesn't abound. In fact, I got a kick out of one reader's comments on the recent *Computerworld.com* story "Web 2.0: A new dot-com bubble in the making?"

"Wow, the 'community sites' idea where people of common interests can network sounds like neat, new stuff!" the reader wrote. "Way to go, Web 'two dot oh.' Oh, wait. I think that has been done before. Can anyone say B-B-S?"

Indeed, there's hardly anything new about online community. More than a decade ago, my daughter met a beau in a CompuServe forum. They lived on opposite sites of the planet: She was finishing up high school in Hong Kong, and he was an intern in a hospital in New York. When that sort of thing happens today, we hail the Web 2.0 phenomenon.

But there's an enormous difference. Back then, online community was a resource. Now, it's a requisite.

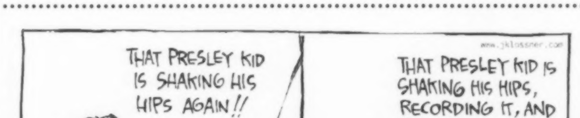
You can no longer expect your professional standing to progress if you don't have an easily accessible, broadly informative presence on the Web. And while that virtual existence is essential in itself, it's not enough. You have to contribute something, and that's what Web 2.0 is all about.

Most of the IT executives whose backgrounds I researched for that roundtable popped up in a context that demonstrates their commitment to sharing information with their peers. At least one has a blog; others are listed as speakers at various conferences; some appear in webcasts; some have published articles; most are quoted extensively in the press. Beyond that, they're found on community sites like LinkedIn, which is indicative of the value they place on gaining assistance from their peers as well.

It's clear, moreover, that IT professionals are going to have to be very comfortable with Web-based collaborative technologies, because these tools' charge into the enterprise is accelerating. In a recent Forrester Research study, 106 of 119 CIOs from companies with more than 500 employees said they are using at least one Web 2.0 technology from a list that includes blogs, wikis, podcasts, RSS feeds, social networking and content tagging. According to the study's author, the CIOs adopted each technology "because it was helping them with some business process they were struggling with."

So, hoopla or not, Web "two dot oh" is as permanent a fixture as any you're likely to deal with. Oh, and in case you're wondering, my daughter and the good doctor subsequently married. I got two grandchildren out of the collaboration. ▪

Don Tennant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IRA WINKLER

Congress Can Help Stop Identity Theft

CONGRESS WILL probably pass a law related to identity theft this year, but I expect that it will be trivial and ignore prevention. Corporate lobbyists have proved themselves adept at stopping laws that would require companies to be proactive in their security measures.

We have laws now that tell companies what to do once data is stolen, while scrupulously avoiding laying out computer security requirements. The hope is that companies will want to avoid the embarrassment of a data breach and so will take steps to better protect themselves. We've all seen how well that's working.

Nothing has been done to address client-side attacks that target end users — things like phishing, keystroke logging and virus attacks. The enablers of these attacks are bot networks made up of PCs that have been compromised by a remote attacker through known vulnerabilities. The attacker can make the PC do his bidding, and the PC user is none the wiser.

Botnets are growing unchecked, as are the problems they spawn: billions of spam e-mails and their evil cousins, phishing messages and distributed denial-of-service attacks. DDoS attacks are routinely used for extorting payments from vulnerable e-commerce sites, and worse, they occasionally target critical elements of the Internet, such as the root DNS servers, crippling segments of the Internet for periods of time. Frankly, I believe that if there is going to be a significant Internet attack, it will involve bot networks.

So, if Congress wants to protect consumers and the critical Internet infrastructure, it must pass laws that require preventive measures to be taken to protect computers. Laws that tell people how to deal with the resulting mess won't protect much of anything.

Here are more reasons for enacting computer security laws:

- According to reports, more than 90% of unsolicited e-mail is sent out via bot networks. Messages are also growing in size, so you can assume that a very large percentage of Internet traffic is a result of bots.

- From my personal observations, an unprotected computer will fall victim to dozens of attacks an hour. This implies that botnet scans are constant and responsible for a large volume of Internet traffic.
- ISPs and large organizations spend billions to increase bandwidth as spam and other botnet-related attacks consume more and more of it, and billions more dollars are spent on security software and the related hardware to prevent botnet-related attacks.

With the above in mind, the following laws are needed to at least begin to protect businesses, consumers and the Internet itself:

1. Make Internet service providers (and all organizations providing computer access to more than 100 people) responsible for filtering scan-and-attack traffic on their networks. Scan-and-attack traffic is easy for ISPs to detect and block. The more scans that are blocked, the fewer compromised systems there will be. And any increase in the amount of time required to process data packets would be easily made up by an overall decrease in network traffic.

2. Make ISPs knock bot PCs off their networks. Any PC that starts flooding a network with tens of thousands of e-mail messages or hundreds of thousands of DoS packets is clearly compromised or otherwise abusing privileges. It is easy to spot and stop at the source.

3. Make end users liable if losses are incurred as a result of outdated security software. All PCs connected to the Internet should have the latest patches installed, as well as updated firewall, antivirus and antispyware software. While these tools can't prevent everything, they exponentially decrease a computer's susceptibility to compromise. Those who fall victim to an attack because they don't have the appropriate software and updates should be financially responsible for their own losses and potentially the losses they cause others. It's similar to being cited for causing an accident because your car has bald tires.

IRA WINKLER is president of Internet Security Advisors Group. He is a former National Security Agency analyst and author of *Zen and the Art of Information Security* (Syngress, 2007).

4. Security software vendors must make efficiency a critical feature. A law addressing this is essential if people are going to be required to install and run security software. Users have uninstalled their antivirus and antispyware software because it has brought their systems to a crawl. But I am wrestling with how such a law could be phrased.

I could recommend other laws, but these are the most fundamental and easy to implement. Some ISPs will say they can't afford the software and staffing needed to kill access by compromised end users. But they will save money if they don't need to provide as much bandwidth for malicious traffic. And if they can't afford to protect their networks properly, they shouldn't be in the business.

Reactionary laws that address only after-the-fact security breaches will do nothing to prevent identity theft and other attacks. These proposed laws go a long way toward prevention. ▶

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Online Chatter

Raw excerpts from readers' comments on stories at Computerworld.com

RESPONSES TO:
Outsourcing 2.0
MARCH 12, 2007

OK, so really, it WAS about cheap labor, but now it's not, right

For the longest time we were being told [offshore outsourcing] is NOT about cheap labor. Right? Don't I remember that? Now we're being told it's NO LONGER about cheap labor so really, it actually WAS about cheap labor and corporate America was just blowing smoke our way – previously.

But we can believe it now, right? It's NO LONGER just about cheap labor? Let me guess: That's your story and your sticking to it?

SUBMITTED BY: *Anonymous*

first things first

We need to replace the current politicians with real Americans not beholden to Mr. Bill Gates campaign contributions.

Go to http://www.write-me-in.org and let US take back the country from the corrupt politico's and do away with the H1B's once and for all.

SUBMITTED BY: *Anonymous*

Once again Computerworld has missed the giant friggin' pink elephant in the room. Outsourcing is meant to destroy American Industrial Strength. I know, the foreign outsourcers will rail against this as xenophobic. But its not.

The Business Rationale for outsourcing is so simple, they teach it in accounting 101a, it's cheaper. Not just cheaper, its waaaaaay cheaper. Some items to consider:

1. No retirement benefits
2. No long-term employment
3. No health-care issues as long as you hire the young and able bodied
4. Salaries are 1/2 to 1/3 of American Labor
5. Foreigners don't complain when their contracts evaporate
6. No U.S. Labor Laws
7. In the event that the company publishes crap, or there is a large security gaff, it's going to be the foreign "outsourcer" that is going to pay.

The Business Rationale for outsourcing? HIGHER PROFITS.

SUBMITTED BY: *Mickey*

Voice of experience: please listen up CIO's

I am a computer programmer that lost his job to offshore outsourcing in 2003. In order to become more marketable and in a better position to move up and out of a tech job into something that would be safer from offshore outsourcing, I decided to go back to school to get my MBA. In my MBA classes, they preach the offshoring gospel, which I try to ignore. I heard a lot about Thomas Friedman's book "The World is Flat" and was required to read it for one of my classes. Most of the offshoring advocates swear by this book. I guess they didn't read the end where he talks about how bad it is going to get for the US if we don't shape up and start educating our people.

According to most of the Flat Worlders, We are supposed to be the innovators and they are the producers. Well, not everyone in the US is capable of being an innovator and they will still need jobs. Other countries are becoming the innovators as well. Look at the auto industry.

SUBMITTED BY: *Anonymous*

RESPONSES TO:
Texas House Votes to Exempt Clerks From Privacy Laws
MARCH 12, 2007

I wonder how many of these noble Texas representatives coming to the aide of the Texas clerks would like to see their SSN's out on some web site? No wonder they say that when all the bull is over, there ain't nothing left but boots and hat.

SUBMITTED BY: *Anonymous*

If these were commercial enterprises, they WOULD be awaiting trial and liable for the damage caused.

SUBMITTED BY: *Anonymous*

RESPONSES TO:
Why Apple's 'Consumer' Macs Are Enterprise-worthy
MARCH 9, 2007

People ARE starting to get it

The benefits of switching to Mac OS X cannot be underestimated, particularly in the area of reducing long term maintenance costs. Microsofts record on useabilty, security, reliability and innovation is worsening. Where Apple has become the icon for quality, innovation and originality, Microsoft can only be described as a fat bloated tax collector, who had it too good for far too long.

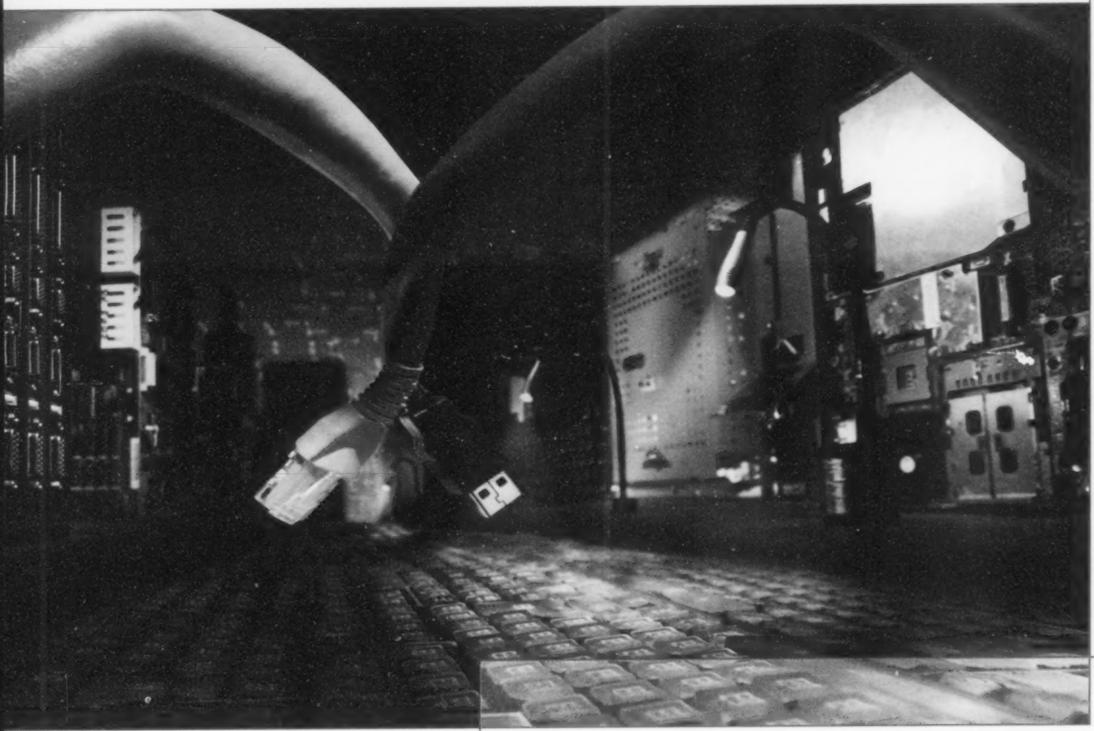
SUBMITTED BY: *Jon T*

Too late for Apple.

It's too late for Apple. The Linux desktop has really evolved over the last couple years, so much that many of the reasons IT groups passed up the Linux desktop a year ago are now looking at it again. Also, Linux does not require as much horsepower as Windows (or Macs), it works on Intel/AMD based hardware, and has a phenomenal windows emulator (Wine). Plus, many IT groups have already migrated a great deal of their Windows and other Unix boxes to Linux, which is thereby developing a Linux competency in house.

If Apple does get a hold of the business market, however, then the Mac folks will most likely be in the same boat as Windows folks with viruses and malware. The more targets, the more fun it is for script kiddies to write damaging software to attack the platform.

SUBMITTED BY: *Anonymous*



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STRATEGIES & TACTICS

Inside 03.26.07

Tech Trash. The days of tossing out corporate electronic waste like common garbage are over. But even executives who think they're doing the right thing could find their trash coming back to haunt them. **PAGE 26**

Back to Basics: Binary Logic **PAGE 28**

How to 'Get Found' on the Web **PAGE 30**

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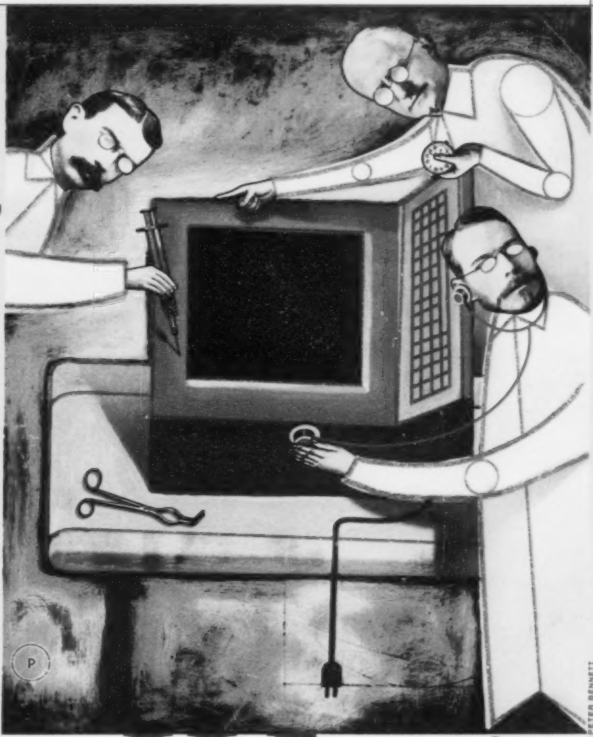
Opinion: Robert L. Mitchell **PAGE 32**


PETER BENNETT

What's Plaguing E-health?

Cultural and cost issues continue to impede adoption of electronic medical records systems, but new approaches may provide relief.

By Thomas Hoffman

THE NEW electronic medical records system at Harbin Clinic has the strong support of its CEO, board of directors and chief medical officer. Its technology can improve patient outcomes while saving physicians money. But cultural issues, including resistance from some of Harbin's physicians, have stretched the implementation from two and a half years to four.

Welcome to the world of EMR, where the best technology and the best intentions come smack up against the inertia of human nature.

Advocates of EMR contend that melding these systems with the work processes of physicians, nurses and administrators can dramatically improve the quality of patient care and cut waste out of health care costs. For instance, by using an EMR system, a doctor can view a patient's entire medical history, use a rules-based engine to pinpoint potentially harmful drug interactions and receive suggestions for new tests and medications.

Studies have shown that the use of EMR systems can help reduce medical errors, including misdiagnoses and unintentionally harmful prescriptions, leading to fewer accidental patient deaths.

But to date, EMR adoption has been a big challenge in the health care industry. Rome, Ga.-based Harbin Clinic is a case in point. Georgia's largest privately owned, multispecialty medical clinic has 135 physicians spread out across 20 locations in northwest Georgia and northeast Alabama. With 33 different medical specialties under its roof, ranging from endocrinology to ophthalmology, Harbin has had a tough time getting various specialists to adapt their work processes to accommodate the EMR system from Chicago-based Allscripts LLC that it's installing. Indeed, the cultural and work process differences among these specialists has made the EMR implementation "more difficult than I would have imagined," says Harbin CIO Tom Fricks.

However, primary care physicians at the clinic immediately embraced the EMR system, since they found it easier and cheaper to key in patient information than to pay a third party to transcribe dictation, says Fricks. But high-end specialists, such as cardiologists, have been considerably more resistant to learning and using the Allscripts TouchWorks EMR system, says Fricks. Cardiologists "don't want aggravation in their lives," he explains.

> It's a field strewn with the carcasses of broken promises.
>
> **MARK FRISSE,** PROFESSOR OF BIOMEDICAL INFORMATICS, VANDERBILT UNIVERSITY

Despite strong support of the EMR system from Harbin's CEO, the board of directors and its chief medical officer (who happens to be a cardiologist), the project has dragged on.

"It's been a long process for us," says Fricks of the estimated $2.5 million to $3 million effort, which Harbin expects to complete in June.

The clinic's difficulty implementing EMR is not unusual. According to a study released last July by the National Center for Health Statistics in Hyattsville, Md., just 9.3% of all physicians in the U.S. use complete EMR systems. "It's a field strewn with the carcasses of broken promises," says Mark Frisse, professor of biomedical informatics at Vanderbilt University in Nashville.

That's why Medicare and a handful

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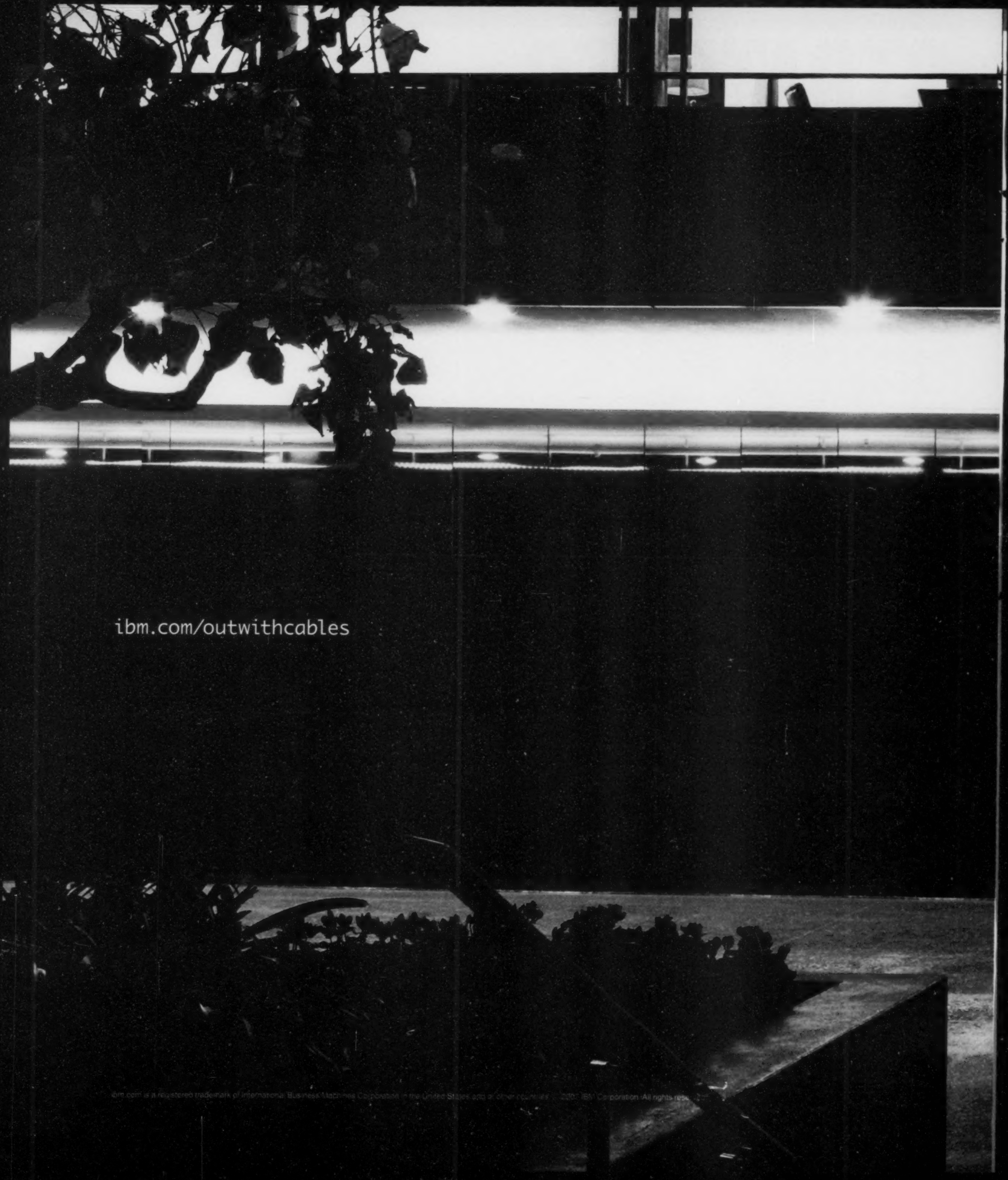
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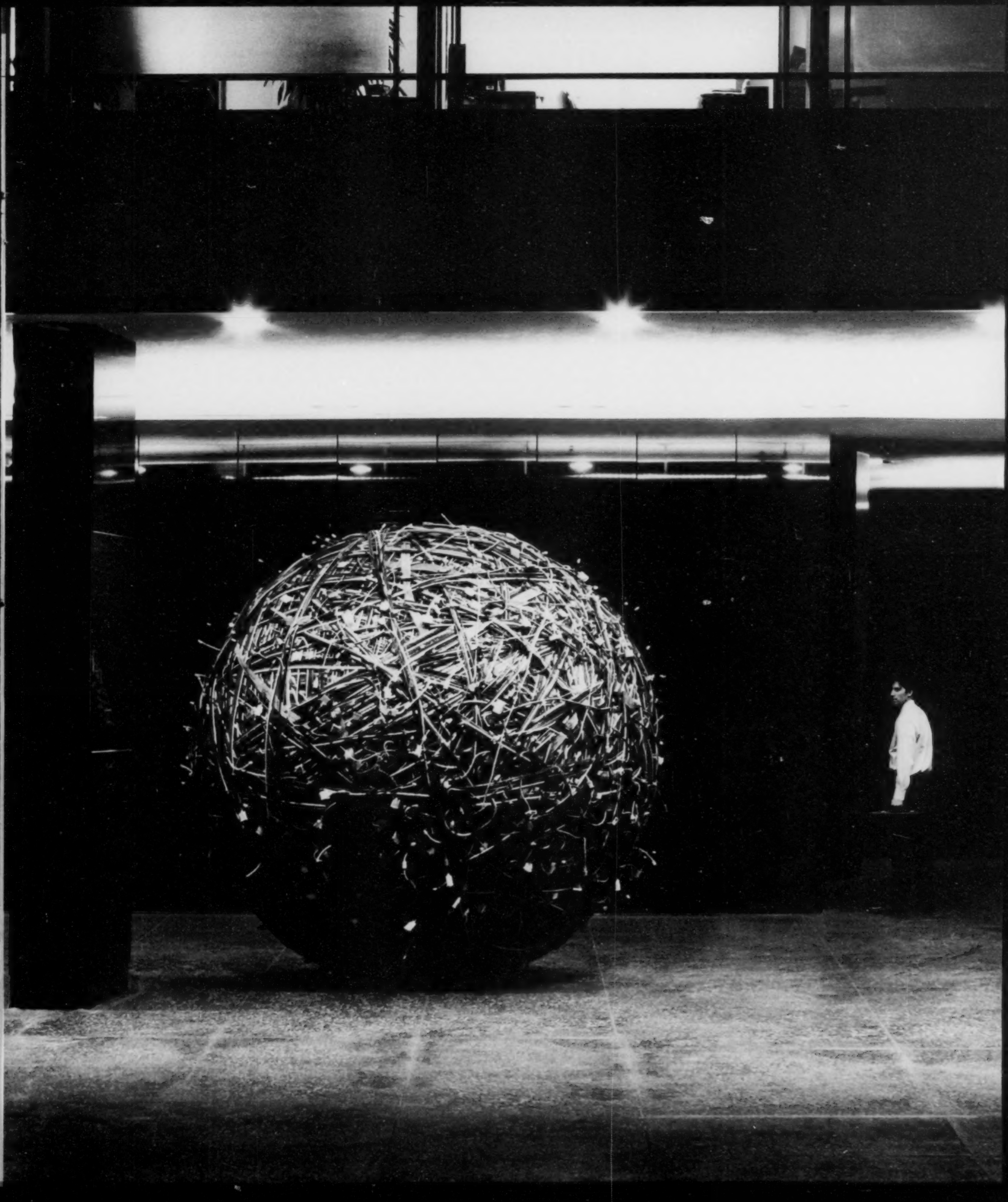

A Shot in the Arm

PAY-FOR-PERFORMANCE incentives aimed at getting doctors to adopt electronic medical records systems have been tested by only a handful of health care insurers, but they have made a big difference in physician adoption rates in regions where they have been applied.

For example, while just 18% of physicians around the U.S. are using one or more components of an EMR system, a solid 48% of doctors in Massachusetts have adopted the systems, according to John Halamka, CIO at Beth Israel Deaconess Medical Center in Boston and a *Computerworld* columnist. Pay-for-performance incentives offered by Blue Cross and Blue Shield of Massachusetts (BCBSMA) "have made a difference," he says.

In 2004, BCBSMA began offering grants and financial incentives for physician groups to install EMR systems, says Steve Fox, senior director for provider relations, communications and e-health at the Boston company. The incentives are tied to achieving quality and efficiency goals. For example, physicians can participate in the health insurer's measurement system for testing patients for diabetes. Doctors can also use their EMR systems to report on patients' hemoglobin and low-density lipoprotein (bad cholesterol) levels and can earn $1.50 for each BCBSMA member they test.

The average payment per physician for this measurement alone was $3,500 last year, says Fox. "So if you're in a group of five physicians, you can see the return on the technology investment." The average payment per doctor in BCBSMA's overall incentive program is $6,000 per year, he says.

Pay-for-performance incentives have also been tested by WellPoint Health Networks Inc. and the Hawaii Medical Service Association.

– THOMAS HOFFMAN

Continued from page 21

of health insurers, such as Blue Cross and Blue Shield of Massachusetts Inc., have begun to sweeten the deal for doctors by offering "pay for performance" incentives that are aimed, in part, at enticing physicians to adopt and use EMR systems to improve their quality of care.

PAIN POINT

But physician resistance isn't the whole problem. Cost constraints, the lack of dedicated IT staffers at smaller physician groups and the disruptive impact that EMR installations can have on a health care organization have also limited adoption rates.

Installing a full-blown EMR system at a large hospital can cost up to a few hundred million dollars, says Frisse. That's a big chunk of change, especially for cash-strapped hospitals. Plus, roughly 3,000 of the nation's 5,000 hospitals are not-for-profit institutions, notes Eric Brown, an analyst at Forrester Research Inc. in Cambridge, Mass. Unlike for-profit hospitals, those organizations don't have shareholders "clamoring for profits" through improved technology, says Brown, so there's less pressure to invest in EMR systems.

EMR investments can be even more daunting for small physician practices of, say, two to six doctors. The average cost per physician for EMR system evaluation, installation and training runs about $40,000, says John Halamka, CIO at Beth Israel Deaconess Medical Center in Boston. He is also chairman of the Healthcare Information Technology Standards Panel, an ANSI-backed initiative that's aimed at facilitating interoperability among health care applications.

Another problem is that the primary benefits that EMR systems generate — higher-quality care and improved patient outcomes — are skewed toward fattening health insurers' profits and helping patients, says Halamka.

"The individual who receives the least economic value is the physician," says J.P. Little, chief operating officer and acting CEO at RxHub LLC, a nationwide information exchange in St. Paul, Minn., that connects physicians, patients, pharmacies and pharmacy benefit managers. That's where pay-for-performance incentives may tip the scale, Little says. "If a doctor got a bonus of ten or twenty grand to improve quality of care, they're going to adopt the technology," he says.

OPERATING ROOM

Another barrier to EMR adoption is the disruptive impact that these implementations can have on a health care organization's short-term operations, especially for smaller entities. It's a tough sell to persuade physicians to buy EMR systems that can force them to cut back on their patient loads (and revenues) by as much as 25% for up to a month during the implementation transition.

"If you're a four-person practice, you can't afford to take four weeks off and tell patients to come back and see you when you're ready," says Frisse.

These constraints have led to the emergence of application service provider (ASP) type EMR applications aimed at lowering the costs and burdens associated with on-site installations. Cerner Corp., a Kansas City, Mo.-based health care software provider, has been offering hosted support of its PowerWorks clinical and practice management software to individual and group physicians for the past two years at a flat rate of $595 per month, says Michael Ash, a vice president in Cerner's community health organization.

Still, some physicians are leery about having a third-party entity store confidential patient information, says Dianne Koval, director of physician services at MedAllies Inc., a health care consultancy in Fishkill, N.Y., that's just starting to roll out ASP services for two EMR applications to 25 health care providers in New York's Hudson Valley region.

To ease those concerns, MedAllies' salespeople demonstrate to physicians that under a hosted model, "they don't have to worry about employees or patients tampering with records," says Koval. "They realize it's more secure."

Nonetheless, the ASP-style approach isn't a cure-all. For instance, Evanston Northwestern Healthcare in Indiana implemented an EMR system from Verona, Wis.-based Epic Systems Corp. in late 2003 for its 500 doctors. The $35 million effort has been viewed as a success and has generated a three-and-a-half-year return on investment, says CIO Tom Smith.

Whose System Is It, Anyway?

Further complicating the move to electronic medical records is the question of where the systems are implemented, who pays for them and who gets to use them.

Hospitals sometimes extend their EMR systems to off-premises physicians' offices, particularly when the physicians are considered to be hospital employees.

Doctors with hospital privileges may not necessarily be considered employees, however, so they may or may not be included as users in an EMR system.

Medical practices whose partners are not affiliated with local hospitals or linked to local hospital EMR systems may implement their own systems independently or negotiate with a local hospital to become linked to the hospital system, either directly or under an ASP-style arrangement.

– THOMAS HOFFMAN

Still, it has been challenging to install the system in the practices of the other 40 independent physicians who work part time at one or more of Evanston's three hospitals, says Smith.

"A lot of [these] physicians don't have computers," he notes, and even those who do would have to have LANs installed in their offices to link the various partners. To install the Epic system for these independent doctors, implementation work would have to be done before and after regular work hours so as not to disrupt office operations and patient care, Smith says.

"It could easily cost $50,000 for an office of two or three [physicians] under an ASP-type setting with us," says Smith. "It takes a lot of work."

Yet the EMR implementation, which Evanston broke down into several discrete projects, has otherwise been a success for the company. Part of the reason is that Smith and his team worked closely with nurses and physicians to address workflow changes that the system required and to set clear payback expectations, he says.

The results have been worth it. "It's so much faster to do business this way," says Smith. For instance, the time it now takes to turn around lab results electronically for a patient "is like the difference between sending e-mail and regular mail," he says.

> [Cardiologists] don't want aggravation in their lives.
>
> **TOM FRICKS**, CIO, HARBIN CLINIC

It's important for health care organizations to recognize that an EMR implementation requires significant business process and workflow changes and isn't simply a plug-and-play application, Smith says.

Allina Hospitals & Clinics in Minneapolis realized that early. It's in the final throes of a four-year, nearly $250 million effort to install an Epic EMR system throughout its 11 hospitals and 65 clinics in Minnesota and western Wisconsin. Because the implementation is so comprehensive, the company decided to run the project out of its operations group instead of IT, says Kim Pederson, vice president of the EMR implementation.

"This really wasn't about implementing software," says Pederson. "This represents work that the vast majority of our 23,000 employees do every day. This was, as much, if not more, about process redesign and change management than about delivering the software. So we deliberately positioned it outside of IT for those reasons." ▸

Congratulations to Our Finalists!

The SNW "Best Practices in Storage" Award Recipients will Be Honored Wednesday, April 18th at Storage Networking World in San Diego.

Storage Networking World (SNW), in conjunction with Computerworld and the Storage Networking Industry Association (SNIA), proudly presents the ninth SNW "Best Practices in Storage" Awards Program. This program honors IT user "best practice" case studies selected from a field of qualified finalists.

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- Northeast Delta Dental, Concord, New Hampshire
- University of Florida, Gainesville, Florida
- Walt Disney Feature Animation, Burbank, California

Maximizing ROI

- Central Bank, Jefferson City, Missouri
- Chicago Mercantile Exchange, Chicago, Illinois
- Children's Hospital of Los Angeles, Los Angeles, California
- Cingular Wireless, Alpharetta, Georgia
- Six Flags, New York, New York

Planning Designing and Building Strategic Storage Infrastructure

- Cambridge University High Performance Computing Services, Cambridge, United Kingdom
- Shinhan Bank, Seoul, Korea
- Silverpop, Atlanta, Georgia
- Telstra, Melbourne, Australia
- Woodbridge Township, Woodbridge, New Jersey

Storage Reliability and Data Recovery

- Edward Hospital & Health Services, Naperville, Illinois
- Fulton County, Atlanta, Georgia
- GFS Data Protection Services/Windows Live, Redmond, Washington
- LifeGift Organ Donation Center, Houston, Texas
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Systems Implementation

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- ICICI Bank, Mumbai, Maharashtra
- NBC Olympics, New York, New York
- Stanford University, Stanford, California
- The European Organization for Nuclear Research (CERN), Geneva, Switzerland

Judging Criteria

Judges evaluated and ranked the finalists in each category according to their substantiated storage-related solution attributes and achievements against a set of criteria as follows in:

- Financial return and measurable payback (returns on investment, assets, resources) through created/protected revenue opportunities or cost savings.
- Strategic importance to the business.
- Substantive customer impact (service, retention, acquisition).
- Positive impact on other business/organization units.
- Addresses system and department interoperability issues and heterogeneous platform integration challenges.
- Provides a strategic advantage to the business/organization while anticipating and accommodating the deployment of future storage solution initiatives.
- Supports the efficient and reliable data, information and application sharing/access between personnel, departments, divisions, etc.
- Addresses challenges of data, information and application security, recovery, business continuity, etc.

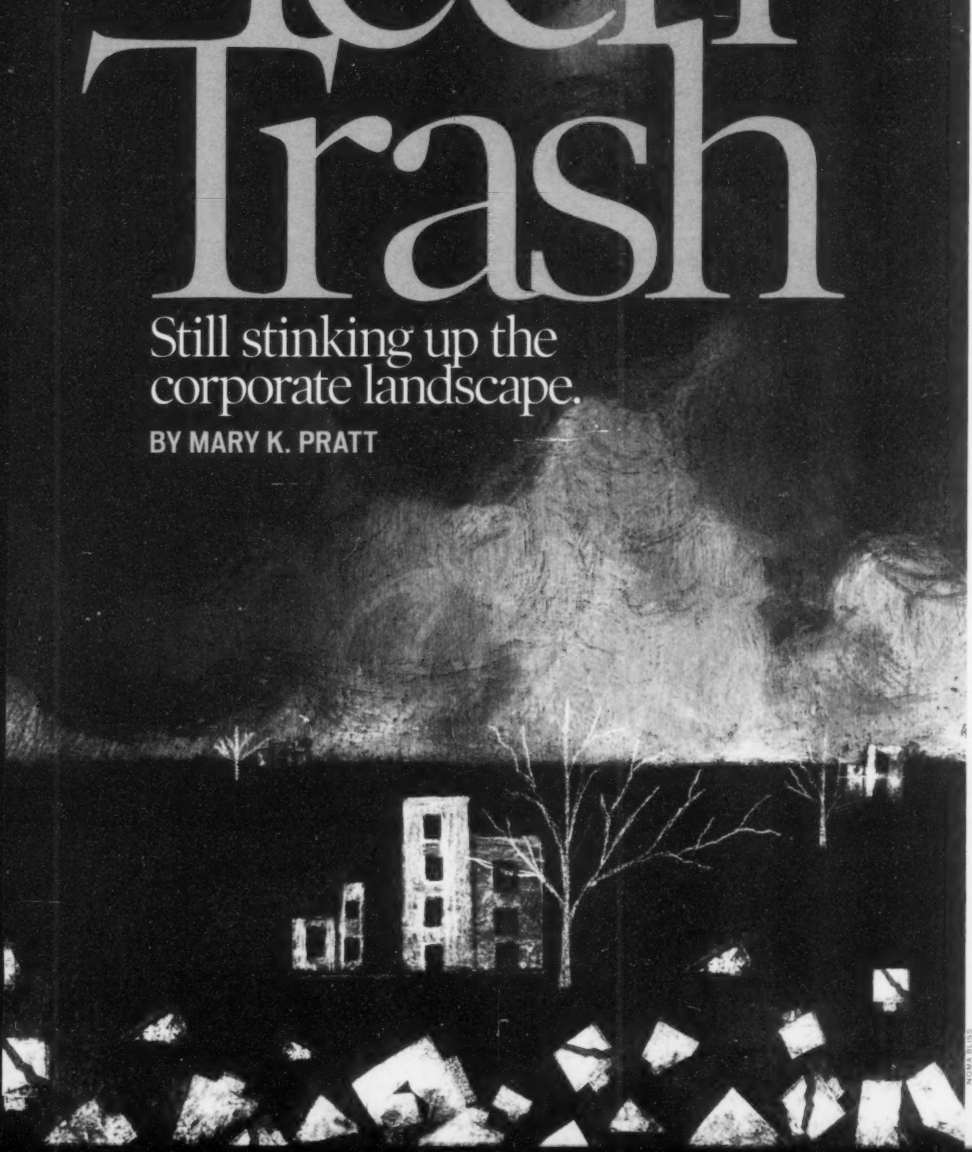
Thank you to our "Best Practices in Storage" Judges for SNW Spring 2007:

- Dennis Anderson, Ph.D., Pace University
- Stephanie Balaouras, Forrester
- Denni Connor, Network World
- Steve Duplessie, Enterprise Strategy Group
- Frank Enfanto, Blue Cross Blue Shield of MA
- Scot Finnie, Computerworld
- Dale Frantz, Auto Warehousing
- Tony Fuller, Rent a Center
- Julia King, Computerworld
- Bill Laberis, Computerworld
- Ellen Lary, Lary.com
- Richard Lary, Lary.com
- James Lin, University of California Riverside
- Robert Logan, Science Applications International Corporation
- Lucas Mearian, Computerworld
- Ron Milton, Computerworld
- Nida Roemer, American Red Cross

Tech Trash

Still stinking up the corporate landscape.

BY MARY K. PRATT



NOMA BLISS

THE DAYS of tossing out corporate electronic waste like common trash are pretty much over. Environmental concerns and data security regulations are driving more companies to develop rigorous disposal policies. Yet there's more to the proper interment of IT equipment than many executives realize, and many companies still fail to handle their electronic waste wisely. Even those who think they're doing the right thing could find their technology trash coming back to haunt them in unexpected ways.

Progress has been made on many fronts. UBS AG, for example, has had a defined process for getting rid of its electronic waste since the early '90s. The Zurich-based financial services company names specific employees to work with approved e-waste processors, says Urs Peter Steiger, risk management lead associate. UBS also tracks its waste, so it knows exactly what has been refurbished for the secondary market and what has been stripped down and recycled.

"There is a greater awareness among companies of their responsibilities, and there's a greater understanding of what the implications are," says Frances O'Brien, an analyst at Gartner Inc.

Well, yes and no. Gartner surveyed executives at more than 200 companies last September and found that 71% had a formal policy for IT asset disposition. But every policy isn't necessarily a good policy.

For example, 19% said they donate their unwanted PCs to schools or nonprofit organizations. Good intention; bad policy, says O'Brien. Your company could be responsible if the nonprofit improperly disposes of the donated equipment or inadvertently releases sensitive data still residing on the equipment.

Costly and Dangerous

Of those surveyed, 17% said their policy is to store old PCs. "There is still a lot stored in closets — industries' closets as well as private consumer closets," says Barbara Rembiesa, president of the Suffield, Ohio-based International Association of Information Technology Asset Managers Inc.

That's not only a costly use of space; it's dangerous, says O'Brien. Companies often "cannibalize" the stored pieces, allowing components that might contain sensitive data to go missing, she explains.

While companies struggle to get

Don't Pass The Buck

Stakeholders, including manufacturers, recyclers, advocacy groups and the U.S. Environmental Protection Agency, have been working to formalize best practices and certify e-waste handlers. Meanwhile, here are some questions you should ask any company that seeks to haul your tech trash:

- What is your capacity? Can you handle the scale of material I need to dispose of?
- How will the materials will be tracked?
- Will I get regular reports and audits to guarantee that you are doing what you promised?
- How is confidential company information handled? How are hard drives sanitized?
- Do you remove corporate asset tags?
- Who bears the risk of loss for equipment in transit?
- Do you sell equipment overseas? If so, is it stipulated that sale is for reuse only? How do you guarantee that it's actually reused and not just trashed?
- Can I visit your facilities?
- Will you provide my company with indemnification?

SOURCES: GINA CHIARELLA, CHIEF OPERATING OFFICER, WERECYCLE INC.; FRANCES O'BRIEN, ANALYST, GARTNER INC.; CHIP SLACK, CHAIRMAN AND CEO, INTECHRA HOLDING CORP.

e-trash disposal right, the problem is growing. There are 500 million obsolete computers in the U.S., and even today, only 10% of unwanted and obsolete computers are recycled, according to the Silicon Valley Toxics Coalition, a San Jose-based advocacy group.

Moreover, many companies don't realize how much material actually falls under the heading of "electronic waste," according to O'Brien. "A lot of the focus has been on PCs, but the issues become much more difficult when you start looking at flash memory cards and key-chain memory drives. There's fairly limited control on those things," she explains.

Other items that need special attention include cell phones and handheld devices, as well as routers and even copiers, which today have memory that can contain sensitive information.

"Some of the smaller companies aren't even aware of the issues, or they don't have the skill sets to dispose of [e-waste] properly," O'Brien says.

Many midsize companies find themselves in that situation. Larger companies usually understand the issues but have a harder time tracking their trash because of the sheer volume of assets.

"Companies that want to protect themselves in this area know they have to have a good asset management strategy," says Jim O'Grady, who, as director of the Americas at HP Financial Services' Technology Value Solutions unit, manages HP's Technology Renewal Center in Andover, Mass.

Tracking Assets

The need to track assets doesn't stop when they leave your building. Elizabeth Grossman, author of *High Tech Trash: Digital Devices, Hidden Toxics and Human Health* (Island Press, 2006), says many companies can't account for where their discarded items end up.

A typical response is something like, " 'I don't know; some guy named Bob picks it up,' " she says. "A ton of stuff is still getting exported, and it's not just coming from our country; it's coming from countries all over the world."

But the world is fighting back. International laws, U.S. security regulations and public relations fiascoes have kept the issue in the public eye.

Environmental advocacy groups and the media have also had a significant effect on businesses because they've publicized the unsavory demise of computers and other electronic products that end up in developing countries, where unprotected residents working in dangerous conditions disassemble the pieces.

"Companies don't want their branded equipment showing up in some documentary about bad exports," says Ted Smith, senior strategist at the Silicon Valley Toxics Coalition.

Role Model

There are other positive signs, including the actions of companies like Kaiser Permanente. The Oakland, Calif.-based health care organization is a leader in handling its electronic waste, and it has the track record to prove it.

Over the past five years or so, Kaiser has disposed of a half-million assets weighing about 12.7 million pounds, with none of the material ending up in landfills, says Rod Andreoff, executive director of business management at Kaiser's enterprise IT operation.

That kind of achievement doesn't happen by chance. Kaiser's asset management team of 14 full-time professionals accounts for all of the company's IT assets throughout their life cycles. When equipment reaches the end of its intended usefulness, team members follow set policies to determine whether it should be recommissioned for a different use or decommissioned entirely.

If the equipment is decommissioned, Kaiser performs U.S. Department of Defense-level wipes to remove all data and then hands the equipment off to Redemtech Inc., a Columbus, Ohio-based provider of technology change management services.

Redemtech sends regular reports to Kaiser so it can track which assets were refurbished for the secondary market and which were disassembled for recycling. Andreoff won't disclose Kaiser's budget for e-waste disposal, but he says it's "substantial."

"It's not an easy thing to do. It requires investment of money and in process and procedure," Andreoff says. "It requires an investment in staff, and it requires a commitment to do it right."

Global Trash Talk

INTERNATIONAL PRESSURE is pushing companies to do the right thing with their e-trash. Here are some examples

- **The European Union's Waste Electrical and Electronic Equipment Directive and Restriction of Hazardous Substances Directive put more responsibilities on manufacturers to take back their equipment and reduce the use of hazardous materials in their products.**
- **China's new Management Methods for Controlling Pollution Caused by Electronic Information Products Regulation establishes frameworks for substance restrictions, premarket certifications and labeling and information disclosure requirements for electronics and IT products.**
- **Basel Convention participants have agreed to stop exporting hazardous waste, including e-waste, to developing countries. (The U.S. hasn't ratified the ban.)**
- **U.S. laws such as the Health Insurance Portability and Accountability Act and the California Security Breach Notification Law have established privacy and data protection standards to push companies to safely dispose of their IT assets as a way to safeguard the data that they contain.**

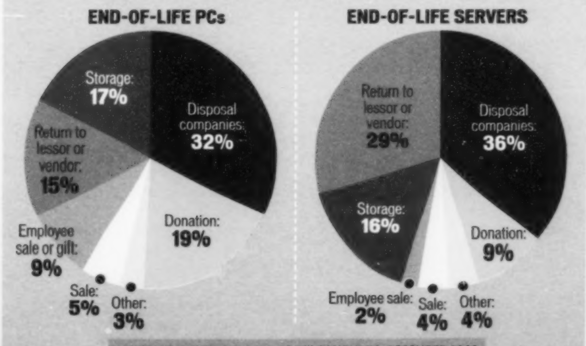
– MARY K. PRATT

On another front, manufacturers are increasingly working with companies to take back equipment for refurbishing or recycling.

"We'd rather be in charge of it, because we know the product; we know we can do a good job with it," says David Douglas, vice president of eco-responsibility at Sun Microsystems Inc. "And we can get money back through the process, and we're able to pour the money back into engineering and make it better," he adds.

Sun recycles about 45% of the material it takes back, and it reuses about 50%, Douglas says. And many manufacturers are thinking about all these issues before their equipment even hits the market. They're designing with disassembly and environmental impact in mind, Douglas says, which makes recycling easier and removes hazardous materials from the products altogether. ◆

WHERE IT GOES



SOURCE: GARTNER INC. POLL OF 277 COMPANIES, DECEMBER 2006

Pratt is a Computerworld *contributing writer in Waltham, Mass. Contact her at marykpratt@verizon.net.*

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BINARY

Binary logic, binary math, binary circuits – they're the foundations of computer hardware and software, but why? **BY GARY ANTHES**

"But let your communication be, Yea, yea; nay, nay: for whatsoever is more than these cometh of evil." Matthew 5:37

BACK TO BASICS

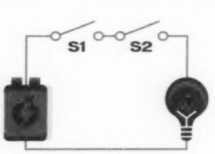
THERE IS NOTHING IN COMPUTER SCIENCE AS BASIC AS THE BINARY NUMBER SYSTEM. In fact, the word *binary* is often used to refer to something that's too simple, as in, "He's a binary thinker," meaning he can't see shades of gray. (Or the digits 2 through 9.)

All of the software and all of the data in conventional (digital) computers, from PDAs to supercomputers, are built up from strings of zeroes and ones. If you knew where to look, that picture you took with your digital camera, the recent presentation to your board and all the complex logic in your company's supply chain system would appear as endless streams of binary digits (bits), like this: 01100100100010110101101010. . .

It's hard to believe today, but in the 1940s, the earliest computer technicians actually worked at the bit level. If a computer made a mistake and the technician determined it wasn't from a burned-out vacuum tube, he might have replaced a 0 with a 1 somewhere and tried again.

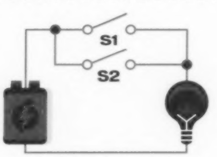
In day-to-day life, most humans use the decimal, or base-10, system. But if humans had eight fingers, no doubt our numbering system would be a base-8 system, with numerals from 0 through 7. And if we had 16 fingers, we might use a base-16 system. In fact, IBM invented just such a system in the early 1960s, using the "numerals" 0 through 9 and A through F. "Hexadecimal" became the base notation for the IBM System/360 mainframes. Why? A programmer could remember and work with a 16-bit instruction much more easily when it was represented by four hex characters, such as 58F0 (a "load" instruction), than if it were 0101 1000 1111 0000 (see table).

Binary Logic



AND Gate

Here, two binary (off/on) switches are connected in series. If both are closed, the bulb lights and the AND condition is satisfied; it's "true." If either or both switches are open, the bulb won't light and the AND condition is not met; it's false.



OR Gate

Here, two binary switches are connected in parallel. If either one or both are closed, the bulb lights and the OR condition is satisfied; it's "true." If both switches are open, the bulb won't light and the OR condition is not met; it's "false."

NOTE: We leave construction of the NOT AND and NOT OR circuits as exercises for the reader.

The Way You Count Counts

Decimal	Binary	Octal	Hexadecimal
0	0000	0	0
1	0001	1	1
2	0010	2	2
3	0011	3	3
4	0100	4	4
5	0101	5	5
6	0110	6	6
7	0111	7	7
8	1000	10	8
9	1001	11	9
10	1010	12	A
11	1011	13	B
12	1100	14	C
13	1101	15	D
14	1110	16	E
15	1111	17	F
16	10000	20	10

Way before that, in 1949, Grace Hopper programmed the Binac (Binary Automatic Computer) at Eckert-Mauchly Computer Corp. using octal code. She taught herself base-8 math, and she once admitted she couldn't balance her checkbook because she tended to lapse into octal subtraction.

Still, at their lowest levels, the Binac and System/360s stored and operated on binary numbers, just as today's computers do, with the octal and hex numbers that were entered by programmers converted to binary.

Yea or Nay

So why was binary chosen in the first place? Why weren't computers built from Day One to work directly, at their lowest levels, on decimal numbers? (Actually, one early computer, ENIAC, was built to handle decimal numbers in its base hardware. It used 10 binary "flip-flops" to hold a single decimal digit — a very inefficient scheme.)

It turns out that the "binary" concept — something is either on or off, period — has some nice properties. Almost a century before Hopper programmed the Binac, a British mathematician named Charles Boole published a system of logic that would later form the foundation of both computer hardware and software. Its basic operations, AND, OR and NOT, could form simple statements with a binary property — they were either true or false — and they could be combined and stacked into the most complex of logical constructs.

The AND, OR and NOT operations can be easily implemented in hardware in the form of "gates." A NOT gate (called an inverter), for example, takes as input a 1 (or 0) and produces the opposite output 0 (or 1). Similarly, an OR gate outputs a 1 if either or both of two inputs is 1, and it outputs a 0 if neither input is 1 (see diagram).

Then, multiple gates can be combined in various ways to make arithmetic units that add, subtract, multiply and divide. Combine enough gates, and *voilà* — you have a computer. Boolean gates were implemented in the earliest computers with electromechanical relays — switches that were on or off — and in modern machines with transistors, which are tiny switches that also have a binary, on/off property.

If Boole got the binary ball rolling, Claude Shannon kicked it into the net in his 1937 master's thesis at MIT. "In what has been described as one of the most important master's theses ever written, he showed how Boolean logic, in which problems can be solved by manipulating just two symbols, 1 and 0, could be carried out automatically with electrical switching circuits," said *The New York Times* in Shannon's 2001 obituary. In 1948, Shannon, who became known as the father of information theory, showed that *all* information could be represented by zeroes and ones, a startlingly innovative concept at the time.

Yea, Nay or . . .

It might seem that nothing is more immutable in digital electronics than the binary device, but thanks to the emerging science of "spintronics," the humble electron may one day be able to express those shades of gray. That's because electrons not only flow — they are either present or absent at a given point — they also spin and point like tiny bar magnets.

David Awschalom, a physics professor and spintronics researcher at the University of California, Santa Barbara, says, "In contrast to zeroes and ones, with spintronics, we might go to a system with an arbitrarily large number of states. The electron is either off or it's present with the spin pointing in one of many different directions. Each direction is a 'bit,' so that you would increase the density of information by many orders of magnitude." ▸

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How to 'Get Found' On the Web

Your Web presence can make or break a job application. By Mary Brandel

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Considering that a growing number of recruiters and hiring managers are using search engines when gathering impressions of potential employees, the question isn't as frivolous as it may seem.

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In today's job market, turning up missing on the Web may not be a fatal flaw, and it's probably better than having a search result in a photo of you in a hula skirt. But over time, the lack of a Web presence — particularly for IT professionals — may well turn from a neutral to a negative, says Tim Bray, director of Web technologies at Sun Microsystems Inc.

"Particularly because we're a core technology provider, if someone came looking for a senior-level job and had left no mark on the Internet, I'd see that as a big negative," he says.

And it's not just about technology, Bray says. "Most companies would rather have somebody who has demonstrated the propensity to contribute, and one [sign] of that is going out and getting involved, joining in the discussion."

However, younger job seekers are more likely to participate in Web activities than older workers, says Jennifer Stitt, a technical recruiter at Cigital Inc., a software security and quality consultancy in Dulles, Va. "We have to be very careful not to fall prey to the belief that because a 45-year-old doesn't have as much out there to be found when Googling, they aren't a good candidate," she says.

Still, says Nolan Bayliss, founder of Naymz, an online identity services provider in Chicago, "someone who has no information online might be perceived as not being as tech-savvy as someone else."

Here are five tips to make yourself more findable on the Web.

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If you haven't done so already, check what people will discover about you through popular search engines such as Google and Yahoo, as well as the lesser-used MSN Search or Ask.com, Bayliss says. Review at least the first three to five pages of results.

Some recruiters use blog-searching tools such as Technorati, Daypop or Blogdigger. They may also search specific sites, such as MySpace, YouTube or Flickr, or even lesser-known sites they themselves frequent, such as LibraryThing.com, says Rick Umali, a technical consultant at Endeca Technologies Inc. in Cambridge, Mass. Check to see what they'll discover.

START A BLOG

Some companies sponsor corporate blogs and encourage employee participation. But you can also establish your own through free blog hosting sites on the Web, such as Blogger.com, LiveJournal.com, Blog-City.com, Xanga.com and MSN Spaces, as well as TypePad.com, Squarespace.com, BlogIdentity.com and Bubbler.com, which charge a small fee.

To further the impression that you're part of a wider industry conversation, you can also create a "blog roll," with links to important industry publications, experts and other blogs, Bayliss suggests.

If you're not yet ready to start your own blog, you can simply begin posting to a technology-oriented blog such as Slashdot.com or Thescripts.com. Be sure to use your full professional name on anything you post, and include a link to the Web profile or page that you want people to see first when they search on your name, Bayliss says. "The more sites that link to your page, the higher that page will display in the search engine results," he says.

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31%	lied about qualifications.
25%	had poor communication skills.
24%	were linked to criminal behavior.
19%	bad-mouthed a previous employer or co-worker.
19%	posted information about drinking or using drugs.
15%	shared confidential information from previous employers.
12%	lied about an absence from work.
11%	posted provocative or inappropriate photographs.
8%	used unprofessional screen namews.

SOURCE: SEPTEMBER 2006 CAREERBUILDER.COM SURVEY OF 1,150 HIRING MANAGERS

Doing the Right Thing For Security's Sake

A new governor calls for consolidation of IT and security. As our manager plays her role, her code of ethics matters. By C.J. Kelly

WHAT IS the right thing? I always ask myself that question when confronted with an ethical issue. A friend suggested that the reason problems at work bother me so much is that I have a highly defined sense of right and wrong.

SECURITY MANAGER'S JOURNAL

That sense does not always jibe with upper management's. For many years, I found it hard to resist speaking my mind at any time and to anyone — it always felt good. That got me into some trouble, though, and so I have modified my behavior over the years.

I haven't become a relativist. I think the vernacular for "relativism" is "wishy-washy." I could never govern my life with a philosophy that states that there is no absolute truth, but only a truth relative to the circumstances, the culture or my own frame of reference. And I still speak my mind, but now I do so after careful thought and in ways that can convert others to my way of thinking.

Clear Boundaries

I grew up in a very conservative home where doing the right thing was paramount. When we children failed in that, punishment would quickly ensue. The rules were clear, and we were encouraged to use our conscience as a guide in all things. Mine was a childhood marked not by high fences, but by strong boundaries.

When I entered the corporate world, I found that doing the right thing was about turning a profit. There were ethical and legal boundaries, of course, but decision-making turned on the question of whether an action would be good for the company or hurt it. Many times, what was deemed to be good for the company resulted in an action that was not people-friendly — for example, layoffs, mergers, acquisitions and outsourcing.

A few years ago, I left the corporate world to enter state government employment. Ideally, decisions made within a government are bound up with questions of whether an action will be good for the state or a good use of taxpayer money.

Government decision-makers are all taxpayers, and taxpayers are different from stockholders in many regards. Most taxpayers want their tax money to be spent on worthwhile projects that serve the community. Wealth generation is not a prime consideration.

Of course, both the corporate world and government employment are rife with politics, and politics can be confounding. In the corporate world, politics centers on who has the most money and power. When I was in that world, I always kept a low profile. I aligned myself with people I admired and respected, and who could protect my job. Self-serving, perhaps, but I had a family to support.

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Naturally, politics in government is more overt. Among the actual politicians — those who rise or fall depending on the number of votes they get in an election — there are some who really care about doing the right thing for the state or nation they serve. Others are more interested in keeping their jobs by pleasing their constituents. It's up to all of us as voters to distinguish between the two.

Less overt are the politics that go on within the rank and file. Some government employees are passionate about the programs they work on, but others are just doing the 8-to-5 thing and collecting their paychecks.

Given my upbringing, I gravitate toward the passionate crowd, the ones who believe in doing the right thing. I'm attracted by their dedication and energy. But it's difficult for those who are passionate about what they do to work with the 8-to-5ers. Can I keep my passion and beliefs intact working for the state? I'm not sure I can, but I do not want to assimilate.

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I've been thinking about right vs. wrong because we have a new governor. A new head of the state government always brings changes, and I wonder what will be in store for the state's information security program.

This particular governor has recommended a statewide consolidation of IT and IT security resources. Somewhere in his travels, he picked up the idea that the state could save a lot of money by consolidating these areas. To someone who isn't a technologist, that idea sounds good, but what exactly does it call for? Politicians who reach the highest levels of government must inevitably deal with matters that they aren't familiar with. When that happens, they have to consult experts in the field and trust their advice.

Unfortunately, I worry that our new governor isn't trusting the right people. As a result, the state's IT and security managers and all of their employees are scrambling. A hiring freeze is on, and everyone is trying to look busy. Committees have formed at various levels to create a consolidation plan. What we are likely to get from all of this is a plan for creating a plan.

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SECURITY LOG

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EVENTS

Supply Chain

April 4-5, Boston

Sponsor: Aberdeen Group Inc.

The Supply Chain Management Summit includes presentations on transforming global supply chain operations; process improvement through visibility, control and collaboration; working capital and cash flow optimization; global trade and risk management; planning for the future while executing in the present; gaining cost control; and working capital innovations.

www.aberdeen.com/events

Business Process Management

April 9-12, Chicago

Sponsor: BPM Institute

BrainStorm Chicago offers tracks for business and technology professionals. Presentation topics include new directions in BPM tools and technology, metric development, time-sensitive batch processes, bridging the gap between IT and business, and business-process-driven enterprise architecture.

www.bpminstitute.org

Innovation

April 29-May 2, Cambridge, Mass.

Sponsor: Cutter Consortium

Summit 2007: Focus on Innovation includes presentations on learning from innovators around the world, contracting agile development, learning how to profit from risk, enterprise architecture, ITIL, Web 2.0 and the enterprise, the art and paradox of leadership, and the relevance of innovation for IT. **www.cutter.com**

Compliance and Risk Management

May 9-11, New Orleans

Sponsor: Gartner Inc.

The Compliance & Risk Management Summit offers tracks on technology and services, risk and performance, and compliance and control. Topics include records management and digital preservation, IT change management using compliance processes, hot security technologies, establishing a controlled environment for financial reporting, and security and privacy in global outsourcing.

www.gartner.com

ROBERT L. MITCHELL

Web 2.0 Users Open A Box of Security Risks

WHEN she can't find the financial information she needs in the system, the vice president asks her assistant to export the raw data from the financials database into a text file and e-mail it to her at a remote meeting. She receives the file, imports the proprietary data into a spreadsheet, massages the numbers and shares the document online with another assistant, who polishes the final product. The presentation is a success, but the process didn't involve Microsoft Office, SharePoint or other IT-approved enterprise-class collaborative tools.

ROBERT L. MITCHELL is a *Computerworld* national correspondent. Contact him at **robert_mitchell@computerworld.com**.

In fact, everything happened out of band. The raw data went to the executive's personal Gmail account, and the new document was created and shared using Google Spreadsheets. Copies of the data now reside on Google's servers.

Google Apps, ThinkFree Office and other hosted Microsoft Office alternatives are gaining in popularity as ad hoc collaboration tools. But such software-as-a-service (SaaS) offerings have few, if any, service-level or security guarantees and can leave a trail of potentially sensitive data on publicly accessible servers on the Web.

The suites of hosted applications, built using Flash, AJAX or other Web 2.0 technologies, deliver a lightweight alternative to Microsoft applications at little or no cost. While far less full-featured than Office, the streamlined SaaS products are faster and easier to use than their bloatware analogs. As a result, the applications are growing in popularity among users. Fifty percent of ThinkFree's 250,000 customers are business users who share growth projections, marketing materials, sales presentations and other documents online. The technology is working its way in through business's back door in much the same way Web mail and instant messaging did.

Users may start using online application suites at home as a fast and easy way to set up collaborations with friends and colleagues in clubs, civic organizations or other groups. It's an easy way to use shared calendars, discussion forums, collaborative workspaces and tools for creating documents, spreadsheets and presentations. Because users need only a Web browser, there's no need to worry about application, file and cross-platform incompatibilities. Using those same, familiar tools in a business context is a natural progression.

Even some business unit managers are jumping on board, viewing these consumer-grade services as a way to reduce chargebacks from IT, says John Pescatore, an analyst at Gartner Inc.

Unfortunately, little thought is given to reliability or security risks. Authentication is typically limited to a user log-in name and password. While data in transit across the Internet is encrypted using Secure Sockets Layer, the services generally don't offer encryption for data at rest on the provider's servers. If something goes wrong, support may be limited. And availability isn't guaranteed (Google offers an uptime guarantee only for its Gmail application as part of its Google Apps Premier Edition subscription). "What if someone hits Google with a denial-of-service attack?" Pescatore asks. If that spreadsheet is inaccessible or takes 10 minutes to load, the user is out of luck.

Some products offer a file synchronization function, but in most cases, backups require downloading a local copy of each file to the user's machine — a cumbersome process if you have many files. (One vendor, AdventNet Inc., offers a version of Zoho Virtual Office that can be hosted on your own servers, where files can be managed and secured by IT.)

Then there's patching. Microsoft issues patches once a month, and administrators test each before deployment. With services such as Google Apps, updates and patches happen automatically and without warning. If online applications become the primary tools for workflows and collaboration, as Microsoft Office is in many businesses, it's possible that things could break. "These applications — the enterprise doesn't get any visibility into them," Pescatore says.

Most important, the security of data on back-end servers can't be guaranteed. "How does Google demonstrate that I can't link to some other company's spreadsheet?" Pescatore asks. It doesn't. Providers of enterprise-grade hosted applications, such as Salesforce.com, don't just make promises about such things. They go through audits to prove to customers that their back-end servers are secure. Google and others provide no such assurances — even to those paying $50 per year for Google Apps Premier Edition.

A $50 subscription is still a lot less than Office 2007 costs, but you get what you pay for. "You either accept the risks to save money or you spend more to mitigate the risks. Then the savings aren't as large," Pescatore says.

One way around the problem is to ban the use of hosted application services and provide users with viable alternatives, such as Web-accessible in-house collaboration platforms and virtual desktops using products such as Citrix's Presentation Server or VMware Desktop.

As with public instant messaging and Web mail, however, the services may have valid business benefits in some situations — especially in smaller businesses working with less-sensitive data. But administrators need to establish clear policies with regard to their use and educate users about the risks. ▸

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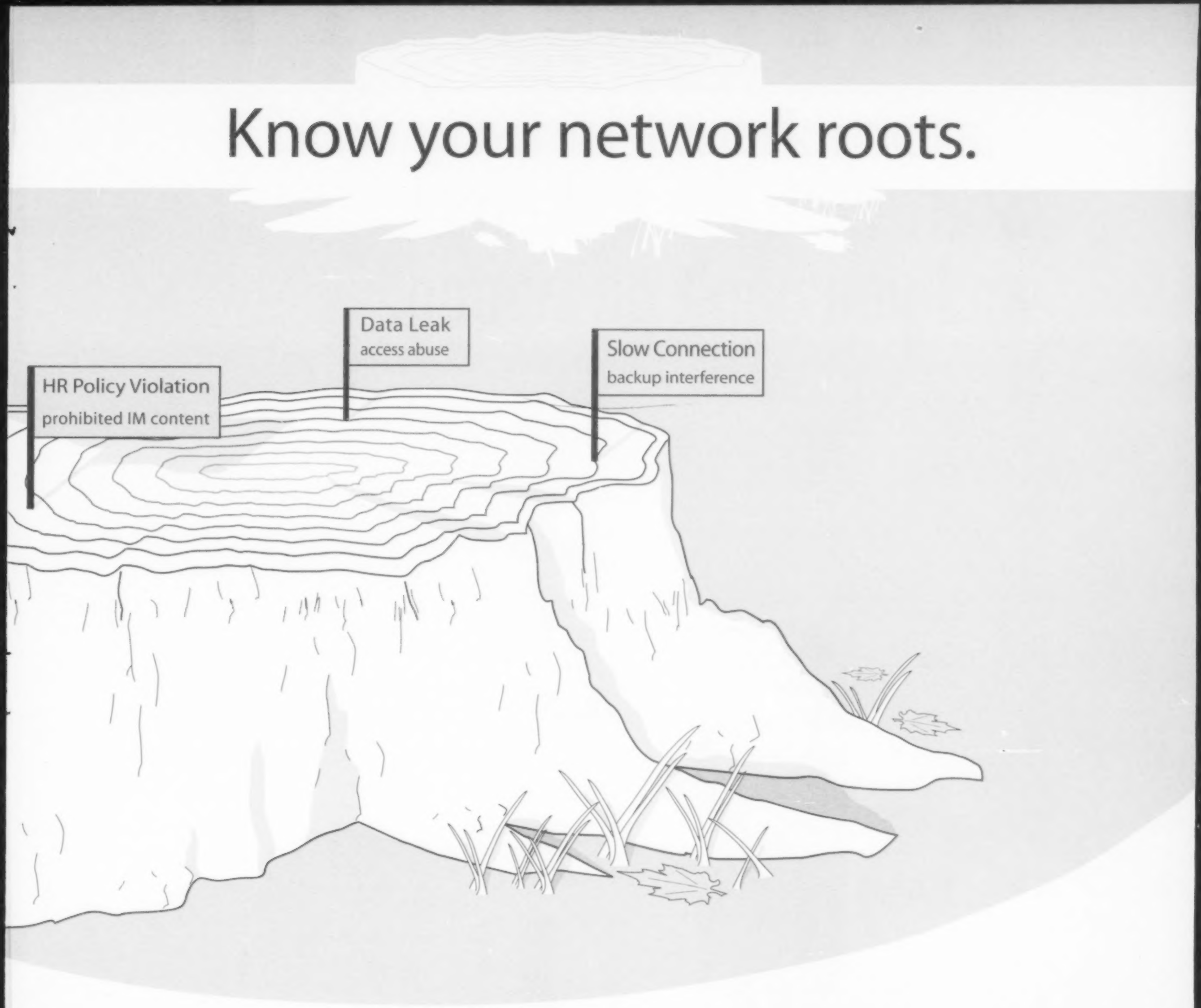
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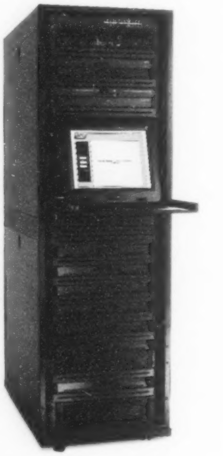

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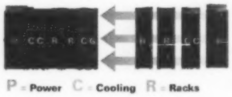

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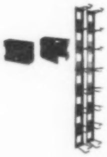

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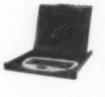

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Outsourcing

opment operations to another country, he might not object — as long as the work met the same service standards.

"I don't believe there is an affinity to any particular location," McClanahan said. He added, though, that India has "the critical mass and capability" in terms of skilled workers.

If Gartner's wage-growth forecast for India becomes a reality, the salary that a Java programmer could command there would still be less than half of what one in the U.S. might earn. But rising salaries are among the pressures that outsourcing vendors in India must deal with. Another is a shortage of experienced middle managers, said Gartner analyst Frances Karamouzis.

Offshore Forecast

- Application services salaries in India have gone up by about 15% during each of the past two years.
- By 2010, 30% of Fortune 500 companies will source IT services from three or more countries.
- By 2012, India's dominant position in offshoring "will be significantly diluted."

SOURCE: GARTNER INC., STAMFORD, CONN.

Peter Nassim, an outsourcing manager at Automatic Data Processing Inc.'s Canadian operation in Etobicoke, Ontario, said that if he was told by his offshore services vendor that he could get a better rate or skill set in a country other than India, he would consider the suggestion.

"It's the deliverable that matters to me," Nassim said. Location would become a bigger issue if ADP needed specific language skills or had concerns about security, but in that case, such factors could be built into a vendor's requirements, he added.

Lisa Gage, director of corporate strategy and planning at General Motors Corp., said the automaker is focused on getting all of its IT operations, including service providers, to follow standardized processes.

GM's outsourcing vendors are responsible for deciding where work should be done, she said, and they can't pass along any wage increases to the automaker — so labor costs aren't an issue for GM. What matters to her, Gage said, "is the quality of the product."

Outsourcing vendors at the conference, as well as Gartner, said country-specific locations remain a selling point in some cases. Wages aren't necessarily the most important reason for considering certain locations: Time-zone and skill advantages are part of the mix, as are language skills.

For instance, Brazil-based IT services firm Politec Inc. touts its relative closeness to the U.S. from a time-zone perspective as a selling point that distinguishes it from vendors in India. "That in itself makes a critical difference for certain types of work," said Eric Olsson, a consultant at Politec.

Vendors in India once received 80% of all offshore IT spending by U.S. companies. Now they get about 59% of the $26 billion that U.S. companies pay for offshore services, according to Gartner.

Bipin Thomas, a vice president at Satyam, said that the IT wage increases in India have been mitigated by productivity improvements and increased automation.

But Gartner's warning about a shortage of experienced project managers in India "definitely is a real issue," Thomas said. To try to offset the shortage, Satyam has created its own leadership school to develop skills it needs. ▸

More Nations Vie to Be Outsourcers – Maybe Even Cuba

DALLAS

AT THE GARTNER Outsourcing Summit here last week, representatives from countries like China, South Africa, Brazil, the Czech Republic and, of course, India set up shop on the trade show floor. And many other nations may have a presence in the future if they can successfully develop offshore outsourcing industries.

Gartner estimates that about 60 countries are involved in outsourced IT at some level. The firm divides them into several categories: market leaders, such as India, China, Argentina and Russia; active participants, which include nations such as Vietnam, Egypt and Chile; and countries that are just taking preliminary steps to develop offshoring capabilities.

Among the new countries added to Gartner's list of potential offshore providers this year are Algeria, Bahrain, Kenya, Madagascar, Malta, Moldova, Saudi Arabia and Uganda. It's a fluid list – countries removed for a lack of progress include El Salvador, South Korea, Panama, Peru and Taiwan. Puerto Rico was also scratched.

One survivor on the list is Cuba. Gartner analyst Frances Karamouzis said the communist country, which has a population of about 11 million people, is "an interesting prospect" because of its educational programs in math and computer science.

Eric Driggs, a research associate at the University of Miami's Institute for Cuban and Cuban-American Studies, said in a telephone interview that Cuba offers an educated population and university-level IT training. It also has youth centers that provide basic computer training. "You are definitely seeing a buildup of human capital to make [offshore services] possible," Driggs said.

But Cuba's government restricts Internet access and sees IT as a threat to its security, according to Driggs. And the Castro regime isn't showing any signs of loosening its technology controls: Ramiro Valdes, who was appointed last year as Cuba's IT and communications minister, is a longtime government official and former security chief. His appointment, Driggs said, "is probably a good indicator that they are not messing around when it comes to the Internet."

– PATRICK THIBODEAU

Government IT Managers Face Offshoring Constraints

DALLAS

IF KARL KAISER allowed his outsourcing provider, Unisys Corp., to move desktop support, network management and some other infrastructure services offshore, it likely would yield financial benefits. But it could also create problems.

Kaiser, CIO for the city of Minneapolis, thinks that offshoring government IT work – even tasks that are being done by the employees of a corporate contractor – would touch off a political maelstrom.

Kaiser said at the Gartner Outsourcing Summit here last week that offshoring could cut the $10 million that Minneapolis spends annually on IT infrastructure services by about $500,000. It isn't a huge sum, and Kaiser isn't pressing for offshoring. But he would like to see a change in government officials' attitude toward sending IT work overseas.

"At the moment, it is not yet an option," Kaiser said, adding that governments "do sourcing around the world. We buy Japanese cars. . . . But when it comes to offshore outsourcing, that's a no-no."

Unlike Kaiser, Greg Tranter, CIO at The Hanover Insurance Group Inc. in Worcester, Mass., doesn't have to deal with the political complexities of government. His overriding mission is to improve IT and its ability to deliver business value at Hanover.

When Tranter took his current job in 2000, he soon began outsourcing some of Hanover's application development and maintenance work to Keane Inc. because of problems with retaining IT staffers, who were taking advantage of frenzied job climate during the dot-com bubble.

Over the years, Hanover has developed a tight relationship with Boston-based Keane, Tranter said, and he extended the outsourcing contract to 2011 late last year. The insurer, which had about 1,200 employees in its IT department seven years ago, currently has 450 tech workers on its payroll, although the total IT workforce increases to 900 when the Keane staffers assigned to Hanover are counted.

Now Tranter is looking to have 25% of the insurer's IT infrastructure services outsourced to Keane by next month. By year's end, as much as 50% of the infrastructure work could be handed off to Keane, which operates a services center in India.

The support services that Keane will handle include configuring servers and desktops, which is relatively routine and repetitive work, Tranter said. "Why should I pay somebody here $100,000 to [configure] a server when I can pay somebody in India half of that to build it?" he asked.

Tranter said that Hanover's IT employees in the U.S. will be able to devote their time to working on more productive tasks and helping the company meet other technology goals, such as building a service-oriented architecture and making its application environment "more reusable and easier to develop."

– PATRICK THIBODEAU

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FRANK HAYES ■ FRANKLY SPEAKING

8 Million Reasons

WAL-MART is now out $8 million because of TJX's security problems. You remember TJX, the big retailer that in January reported a series of data security breaches. Those breaches, involving credit card transactions that date back to 2003, let thieves walk off with an unknown quantity of credit and debit card numbers.

No, we don't know how many. But there were enough. Last week, Florida police arrested members of a ring that used some of those numbers to steal at least $8 million from Wal-Mart stores.

That's twice in a row that IT didn't help protect the business.

The first time, of course, was when intruders stole TJX's customer data. That probably wasn't the Florida gang, according to police. But once the Florida thieves got the stolen credit card numbers, the gang allegedly used them to buy Wal-Mart gift cards, then redeemed them at different Wal-Mart stores for items that included computers, electronic game consoles and big-screen TVs — $8 million worth.

There's nothing new about that scam; thieves have used it for years at Wal-Mart, Target, Sears and other retailers. Sometimes thieves even bring the merchandise back for a cash refund. What the thieves depend on is the fact that they're repeatedly laundering their transactions — from stolen credit card numbers to gift cards, then to merchandise, then to cash.

And that's the second place that IT could be providing protection. At every step in that gift card scam, IT could help spot the fraud. But that mostly doesn't happen.

Yes, when a credit card is reported stolen, it's quickly deactivated and transactions using the card are no longer authorized. That's IT at work protecting the business.

But there's a lot more IT could do. What if Wal-Mart used the list of stolen card numbers to automatically search its own recent transactions for suspicious activity — such as sales of gift cards? Then those gift cards could be deactivated and Wal-Mart could actually recover some of the money lost to thieves.

And even if the gift cards had already been used, those transactions could be flagged so that if the thieves brought the merchandise back for cash refunds, they could automatically be spotted at that point. That translates to merchandise recovered and cash back in the bank.

That's two extra chances to catch the thieves and reverse the loss. Sure, Wal-Mart probably did something like that after it discovered it was losing millions of dollars. That kind of forensic database work is likely how the gang in Florida was eventually caught.

But IT should be making all that possible automatically and continuously. And at most retailers, that just doesn't happen.

Why not? Those transaction systems aren't set up to aggressively watch for the gift card scam. The data is all there, but the software isn't, and neither is the database performance.

Isn't it time they should be?

These thieves have figured out how to work the system. They count on the fact that retailers could spot fraud in near real time but don't bother to, once the initial fraudulent credit card transaction goes through. And now that the fraudsters have the system pegged, they'll keep ramping it up. Remember, that $8 million Wal-Mart loss is from a single gang. It's just the tip of the iceberg, and it's likely to get a lot worse unless IT changes the game.

Yes, beefing up transaction systems so they can handle constant hammering to watch for fraud will cost real money. But for once, there's real money to be saved — not in fictional return-on-investment guesstimates, but from fraud blocked and cash recovered.

Better still, for once, IT can step up to the job of actively protecting the business, not just sitting in the back room waiting for bad news.

Best of all, for once, every retail CEO is ready to listen to a proposal for a project like this. With Wal-Mart $8 million in the hole from just one fraud ring, there are 8 million very good reasons to start solving the problem. ▸

FRANK HAYES, *Computerworld*'s senior news columnist, has covered IT for more than 20 years. Contact him at **frank_hayes@computerworld.com**.

Hiring as Fast as We Can

This company has a big IT shop, and execs decide they can fill empty space in the data center by doing server hosting. Soon, business is booming – and the tech staff is seriously overloaded with supporting all the external customers. "During a quarterly status meeting, the director in charge of the hosting services was giving a presentation about bookings and profits," says a pilot fish on the scene. "One tech asked when he'll hire more people to support the work. The director replied that they've seen the workload increase, and they're in the process of hiring more salesmen as soon as they can!"

SHARK TANK

Spring Back

Daylight-saving time arrives without incident for this IT shop – including an old Windows 2000 server. But three days later, users start complaining that the server's time stamps have reverted to standard time. "Eighteen hours of checking servers and time sources yielded the answer," reports a pilot fish. "The president's son thought he would help out by installing new time-server software on the machine after the March 11 transition date. Only problem is, he didn't check the daylight-saving time box once he installed the application – hence the reversion."

We Agree

Server has to be taken offline on an emergency basis to fix a major problem and restore corrupted data. "The group responsible did a wonderful job of minimizing downtime and keeping everyone informed as to the progress," says a pilot fish there. But once it's all over, one particularly clue-challenged middle manager sends along a request for handling the next crisis: "Any chance we can conduct these activities over the weekends? This was not a good thing to have happen during the standard workweek."

That Other Zero

Laptop users at this company are required to have full hard-drive encryption, says a help desk pilot fish. "The only change to the user is an extra password to be entered before boot-up," fish says. "I took a call from a user who could not log in, so I walked her step by step through each character in the password. When I got to 'zero,' the user interrupted, 'That's a capital zero, right?' She'd been using an uppercase O, even though the instruction page in front of her spelled out 'S zero R.' "

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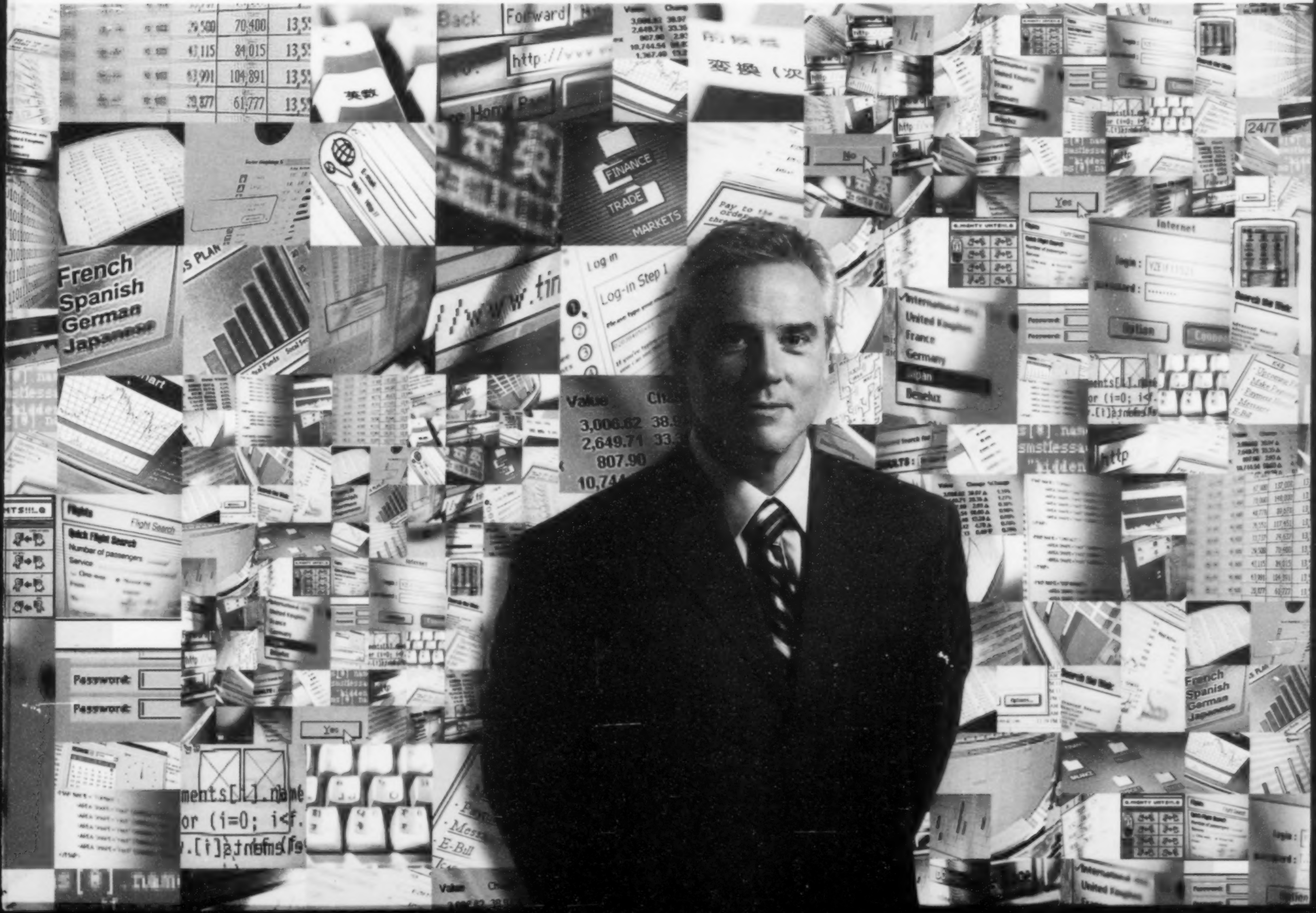

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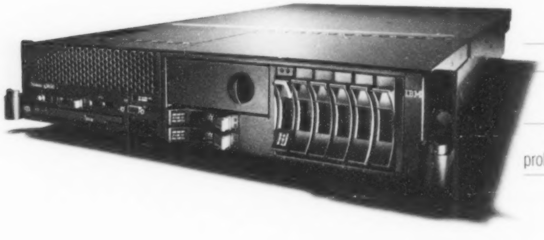

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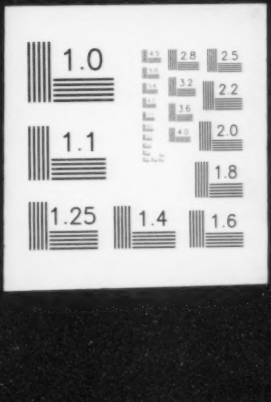
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